# Research in Clinical Skills:
## Showcasing Best Practice for Students & Practitioners

Third International
**Clinical Skills Conference**

**Prato, Tuscany**
**1 – 4 July 2009**

# Abstracts

Papers
Workshops
Posters

'09

MONASH University
Medicine, Nursing and Health Sciences

ANZCA
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UNIVERSITY OF DUNDEE

3rd International
Clinical Skills Conference

# Research in Clinical Skills: Showcasing Best Practice for Students & Practitioners

Prato, Tuscany
1-4 July 2009

# Abstracts

PROGRAMME OVERVIEW

# THIRD INTERNATIONAL CLINICAL SKILLS CONFERENCE PRATO 2009

## Day 1 Wednesday 1 July

| | |
|---|---|
| Arrival/Registration - Lobby reception | 13:00 - 18:00 |
| Concurrent Workshops | 13:30 - 15:00 Workshops 1 |
| Coffee/Tea Break | 15:00 - 15:30 |
| Concurrent Workshops | 15:30 - 17:00 Workshops 2 |
| Reception for conference chairs | 17:15 -19:00 - Prato Terrace |

## Day 2 Thursday 2 July

| | |
|---|---|
| Registration | 07:30 - 08:30 |
| Conference opening | 08:30 - 08:40 |
| Keynote Plenaries | 08:40 - 10:30 |
| Coffee/Tea Break | 10:30 - 11:00 |
| Workshops & Parallel Sessions | 11:00 - 13:00 |
| Lunch | 13:00 - 14:30 |
| | 14:30 - 15:15 |
| Parallel Sessions | 15:15 - 16:15 |
| Coffee/Tea Break | 16:15 - 16:30 |
| Parallel Sessions | 16:30 - 17:30 |
| Free time | 17:30 - 18:30 |
| Welcome cocktail party | 18:30 - 21:00 - *Terrace & Chapel Courtyard* |

## Day 3 Friday 3 July

| | |
|---|---|
| Keynote Plenaries | 08:30 - 09:45 |
| Workshops & Parallel Sessions | 09:45 - 11:15 |
| Coffee/Tea Break | 11:15 - 11:45 |
| Parallel Sessions | 11:45 - 13:15 |
| Lunch | 13:15 - 14:30 |
| Keynote Plenary | 14:30 - 15:15 |
| Parallel workshops | 15:15 - 16:45 |
| Close | 16:45 |
| *Social programme* | 18:15 - 23:30 |

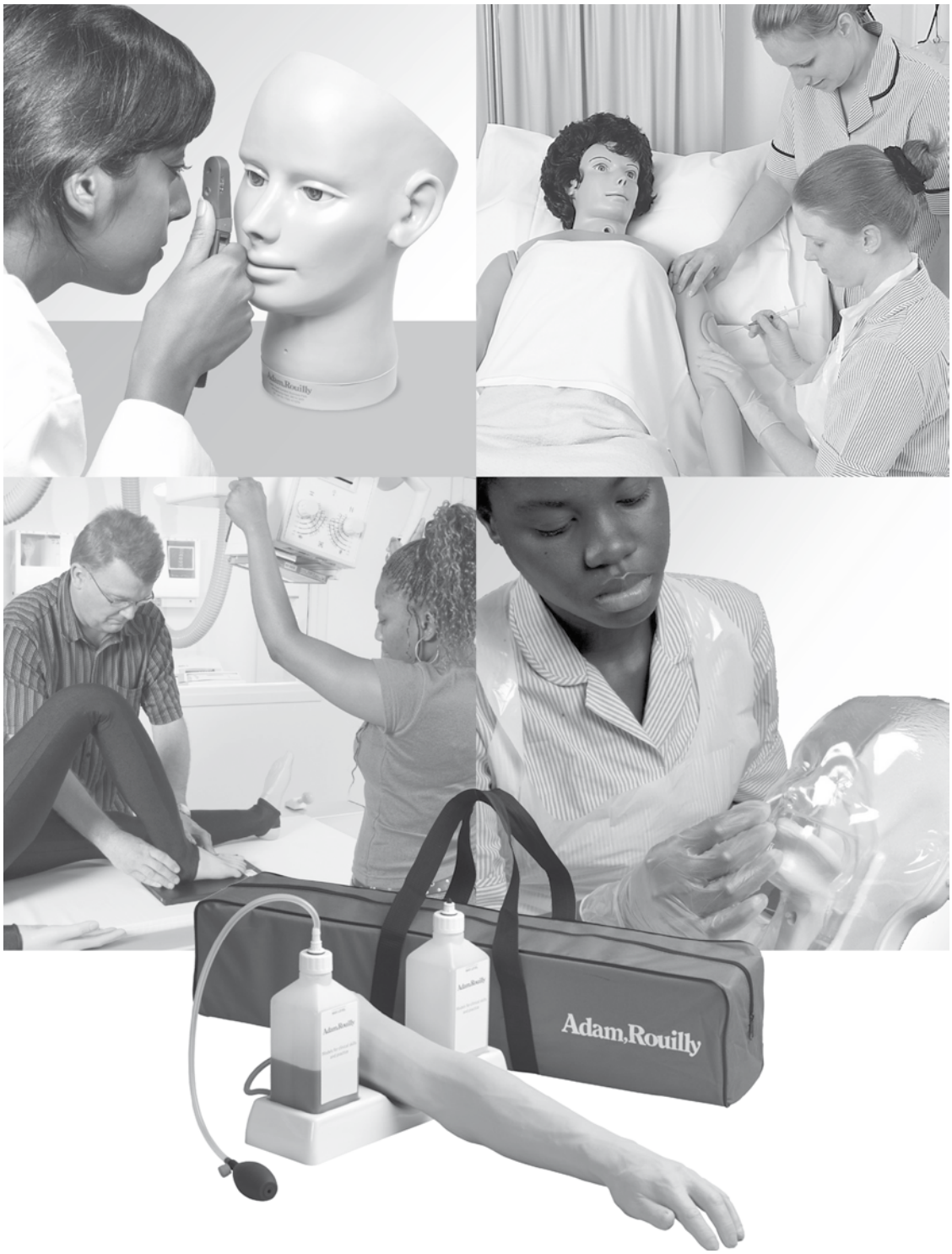
*Conference Dinner - Villa Castelletti*
*Buses to depart at 17:30 from Piazza delle Carceri*

## Day 4 Saturday 4 July

| | |
|---|---|
| Keynote Plenary | 08:45 - 09:30 |
| Parallel workshops | 09:30 - 11:00 |
| Coffee/Tea Break | 11:00 - 11:30 |
| Expert panel | 11:30 - 13:00 |
| Conference Close | 13:00 |

# Adam,Rouilly

## HEALTHCARE EDUCATION

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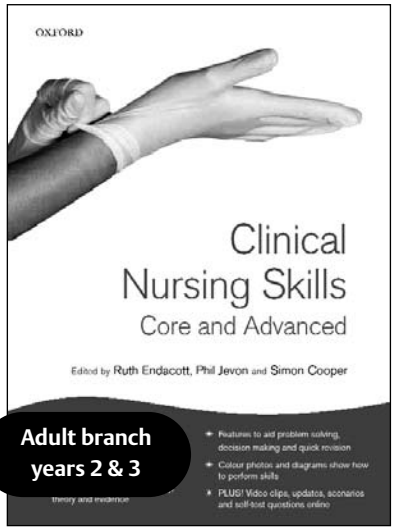


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- ☑ Blends theory with practice
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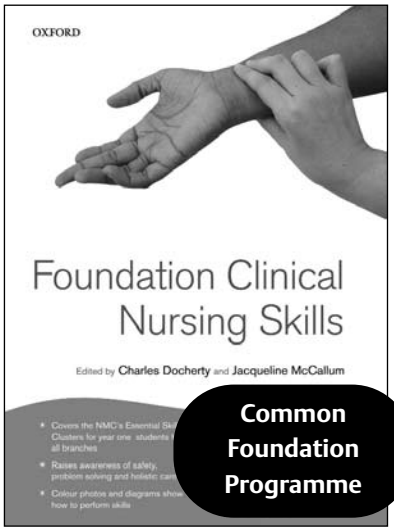


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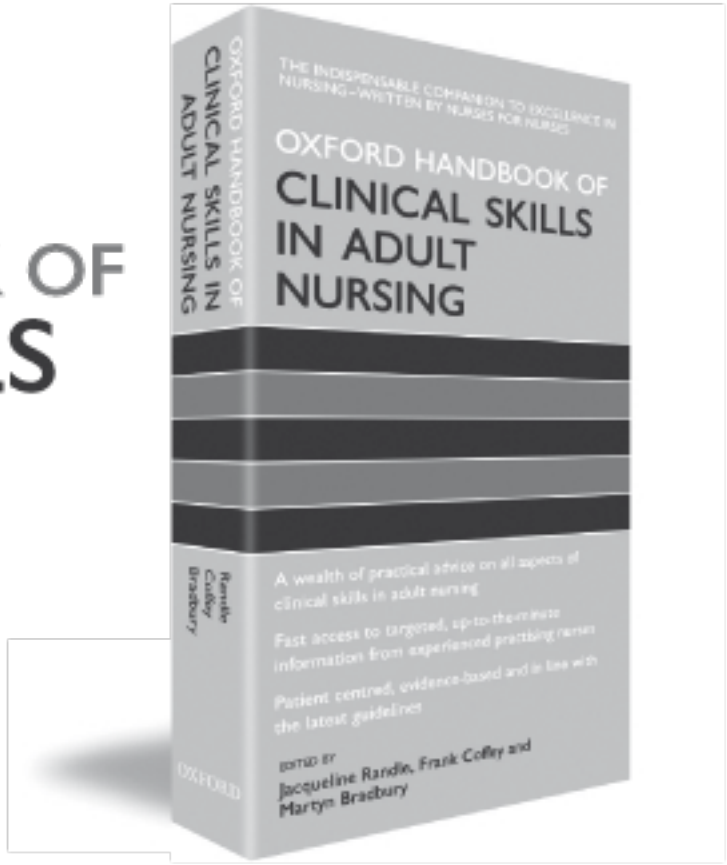


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# Presenters Index



**Code:**

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| KA: | Keynote Address |
| KW: | Keynote Workshop |
| O: | Oral |
| W: | Workshop |
| P: | Poster |

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**INDEX**

## KEYNOTE ADDRESS 01

### Clinical decision making, diagnostic error and patient safety

**Pat Croskerry**

A critical but under-appreciated part of clinicians' performance lies in the calibre of their decision making. In recent years, the importance of this area has attracted considerable interest. Two books on how doctor's think, have been published, one by Katherine Montgomery and the other by Jerome Groopman. It is clear that physician's thinking failures have significant consequences for patient safety, in particular those associated with diagnosis and nbsp. Importantly, new models of decision making have recently emerged that recognize the distinction between intuitive and analytical modes of thinking. Well calibrated decision making in healthcare appears to require a strategic blend of these two styles of thinking. This new approach provides insights into the clinical thinking that underlies diagnosis and why thinking failures occur. These new modes of decision making will be reviewed and their application in the clinical context examined.

## KEYNOTE WORKSHOP 01

### Applying new models of decision making

**Pat Croskerry**

I planned on showing how a 'cognitive autopsy' can be conducted on clinical cases. Real examples of clinical failures will be reviewed and the impact of cognitive and affective biases on clinical outcomes examined. Selected reading materials will be provided beforehand. "Please see reading materials on link below". Following the workshop, participants will be able to conduct systematic reviews of clinical cases to identify thinking failures and their adverse outcomes

## KEYNOTE ADDRESS 02

### Measuring clinical skill

**Jim Crossley**

Assessing clinical skill: measurement or judgment? Jim will share lessons from his experience evaluating clinical assessment methods and programmes. These lessons will illustrate the importance of existing principles, highlight questions that remain unanswered, and provide practical suggestions for developing and implementing assessments. He will make a case for re-engaging with judgment in the assessment of clinical skills and professionalism. There should be something for the assessment developer, something for the assessor, and something for the assessed.

## KEYNOTE WORKSHOP 02

### Measuring the unmeasurable

**Jim Crossley**

This will be a two-way workshop for assessment policymakers and developers. Jim provides problem-solving advice to Universities and Royal Colleges in the United Kingdom and enjoys the interaction between real problems and theory. Please bring a problem and we'll work on some of them as a group.

**KEYNOTE ADDRESS 03**

**The psychophysiological substrate of clinical communication - art and science in teaching clinical communication**

**Stewart Dunn**

The literature on clinical communication skills is most often directed to patient outcomes, and rightly so. But leaving the essential humanity of the clinician out of the equation can oversimplify the directions to young doctors for stressful communication tasks. Our research and teaching have explored the reality of communicating with patients and colleagues in emotionally fraught circumstances, from the medical student dealing with a patient who has just received news of a cancer diagnosis, to the senior clinician breaking the news of a patient's death to close relatives. The psychological impact of these tasks and the impact on heart rate variability and other measures of autonomic arousal have given us a unique insight into the stresses of clinical communication. The implications for the teaching of clinical communication skills are profoundly challenging in the modern world of e-learning and simulation.

**KEYNOTE WORKSHOP 03**

**Interprofessional Communication: finding ways to make it real**

**Stewart Dunn**

How can we make the learning of clinical skills relevant and real for busy clinicians? Cochrane and other EBM reviews confirm that communication and other 'non-technical' skills can be taught but there is less convincing evidence for the transfer and retention of such skills in practice. And there seems to be a core of hard-nosed clinicians who remain resistant to learning non-technical skills.

This workshop will provide participants with first-hand experience of a variety of strategies for engaging clinicians in learning non-technical clinical skills, primarily those involving communication with patients, and with colleagues in multidisciplinary teams. The workshop begins with research and teaching over twelve years in the Pam McLean Centre, using a team of doctors, psychologists and a medical dramatist working with 35 professional actors. Opportunities will be provided for all participants to share their own strategies for engaging and holding the attention of learners.

We will explore engagement with specific skills training in:

- breaking bad news for medical students, registrars and consultants using a staged curriculum, and understanding of doctor's psychophysiological responses to this task;
- open disclosure following an adverse event, based on more than 65 workshops delivered in NSW, France, Singapore and New Zealand;
- multidisciplinary communication in healthcare teams, based on workshops developed for the National Breast and Ovarian Cancer Centre.

* www.pammcleancentre.org/main.html

## KEYNOTE ADDRESS 04

### How do we know competence when we see it?: assessment of competence at the point of care

**Tara Kennedy**

Clinical supervisors make frequent assessments of health care trainees' competence, in order to ensure the safety of patients while providing appropriate opportunities for trainees to experience clinical independence. While the process of formal evaluation of trainee competence has been the subject of much empirical study, the process of assessment of trainees' competence to provide independent care for a given patient or in a specific clinical context has received less attention. This 'point-of-care' competence assessment (i.e. occurring at the time and in the setting of clinical care) has arguably much more practical impact on patient care and trainee education than does any formal evaluation process, as it guides decisions about the nature of the day-to-day monitoring of trainees' clinical activities provided by supervising physicians. This presentation will provide a historical context and explore current point-of-care competence assessment practices, with a focus on practical implications for teaching and learning.

## KEYNOTE WORKSHOP 04

### Assessment of trainee competence for independent clinical work

**Tara Kennedy**

This interactive workshop will, through the discussion of video cases, provide an approach to the practical dilemma of how to decide how much independence a trainee should be permitted in a given clinical context. Participants will explore their tacit understandings about trainee competence, share their own assessment practices, and gain familiarity with research-supported techniques to improve the validity of their day-to-day assessments of trainee competence for independent clinical work.

## KEYNOTE ADDRESS 05

### The development of simulated workplace environments: their potential role in assessment and remediation

**Jean Ker**

## KEYNOTE WORKSHOP 05

### Developing regional priorities as part of an interprofessional clinical skills strategy using simulated scenarios

**Jean Ker**

**Workshop Objectives**:
At the end of the workshop participants will:

- recognize some of the challenges of developing a regional interprofessional clinical skills strategy
- have developed an action plan of clinical skills priorities for a simulated regional scenario
- be able to identify key steps in the process of developing an interprofessional skills strategy for their own setting

**Background:**
Clinical skills education is a priority for many healthcare systems. Drivers for change include public expectation, the 'patient safety' agenda, increased interprofessional working, reduced training time, regulatory changes and technical developments. Consistent standards of clinical skills education and practice will help ensure that patients receive high quality care irrespective of the healthcare setting or practitioner (1). There is increasing evidence that behaviours observed in a simulated clinical setting can predict how professionals will behave in the reality of practice (2). Simulation provides an opportunity to practice the components of clinical practice in a structured way ensuring that practitioners have rehearsed both technical and non technical skills prior to the reality of health care delivery(3). This principle can be transferred to rehearsing the development of an interprofessional strategy for determining skills priorities.

**Workshop Overview:**
Two short introductory presentations will report a case study of the development and implementation of a regional interprofessional clinical skills strategy.
Each participant will be given a strategic role in a skills task force for one of 3 simulated geographical regions. The task force will be a pack of relevant information in relation to their:

- population profile
- health care workforce
- policy drivers in healthcare
- current skills facilities and programmes

**Each skills task force will be tasked to report back on the following:**

1. Thinking of the big picture for clinical skills in your region what 3 things could the strategy deliver that would make a difference to staff and patients in your region in the next five years
2. Thinking of the medium term what would your
3. priorities be over the next two years for the regional steering group to support the development of:
    - a quality assurance system to enhance skills transferability
    - new skills education resources for new role development
    - training the trainer
4. What specific actions (up to 5) will you have achieved in your region by June 2010 in relation to:
    - quality standards
    - course delivery
    - increased clinical skills training provision ensuring both professional and geographic access

**KEYNOTE ADDRESS 06**

## The World Health Organization (WHO) Patient Safety Curriculum Guide for Medical Schools

**Merrilyn Walton**
**Amitai Ziv**
**Bruce Barraclough, for and on behalf of the Expert Group convened by the World Alliance of Patient Safety**

**Presented by: Rona Patey**

**Brief outline of context:**

Since the 1999 Institute of Medicine report To Err is Human identified the urgent need for patient safety education for health care students [1], little attention has been paid to this area. Medical students have identified quality and safety of care as an important area of teaching [2, 3] but medical school programs continue to graduate doctors lacking patient safety knowledge, skills and behaviours thought necessary to deliver safe care [4].

The World Health Organization World Alliance for Patient Safety has acted to address this gap galvanising world experts in patient safety and medical education and developing a patient safety curriculum guide for medical schools.

**Brief outline of problem:**

Medical students, as future doctors and health care leaders, must be prepared to practice safe health care, but patient safety is still a relatively new concept and area of study. Many medical educators are thus unfamiliar with the literature and unsure how to integrate patient safety learning into existing curriculum, creating the need for an internationally applicable curriculum guide.

**Assessment of problem and analysis of its causes:**

The need for patient safety education for doctors was confirmed by a multi-institutional study assessing patient safety knowledge among 693 medical trainees. This found patient safety knowledge across a range of training, degrees and specialities were substantially limited, and trainees were unable to self-assess their own knowledge deficiencies [5].

A number of factors have impeded patient safety education for medical students:

1. Lack of recognition by medical educators that teaching and learning patient safety is an essential part of the undergraduate medical curriculum.
2. Reluctance to address knowledge that originates from outside medicine, such as systems thinking and quality improvement methods.

3. Entrenched attitudes regarding the traditional teacher-student relationship- one which may be hierarchical and competitive and where an 'expert' disseminates information to the student unchallenged and unquestioned.

In 2007, the Association for Medical Education in Europe (AMEE) called for patient safety education to be integrated throughout the undergraduate course, including in the first year, when awareness of the nature and the extent of threats to patient safety can be raised and generic skills can be developed [6].

**Strategy for change:**
The World Health Organization World Alliance for Patient Safety Curriculum Guide for Medical Schools is a comprehensive guide designed to build foundation knowledge and skills for medical students that will better prepare them for clinical practice in a range of environments.
The project focussed on three main tasks:

- Producing a comprehensive, flexible, ready-to-teach curricular guide on patient safety relevant for medical schools worldwide.
- Supporting faculty and teachers in the implementation and delivery of patient safety education.
- Creating an evidence base to support use of patient safety curriculum in medical schools.

**Measurement of improvement:**
The first edition (draft) of the WHO Curriculum Guide was published in 2009 after validation by a worldwide panel of medical educators and patient safety experts. The current pilot phase involves nine universities using all or parts of the curriculum at various sites around the globe. The evaluation of implementation of the curriculum guide will take two forms: evaluation of the curriculum implementation in the pilot sites, and research about whether the curriculum guide results in better prepared students who can practise patient safety principles and concepts in the workplace.

**Effects of changes:**
The availability of a universal patient safety curriculum guide has the potential to have enormous impact on medical education and ultimately on patient care. The World Health Organization Curriculum Guide will assist faculties in demystifying and building capacity for the discipline of patient safety, as well as teaching medical students about this important area in an effort to produce doctors capable of delivering safer and more competent care.

**Lessons learnt:**
Many countries, both developed and developing, can be assisted with World Health Organization projects that aim to build capacity as well as provide essential resources. Patient safety is a worldwide problem and collaborative efforts have the potential to enhance medical education at a rapid rate.

**Message for others:**
Unlike many curricular resources, the World Health Organization Curriculum Guide is freely available for any medical school to use. This project has the potential to break down competitive barriers and share resources that ultimately will benefit patients from all over the world.

**References:**
1. Kohn LT, Corrigan JM et al: To Err is Human: Building A Safer Health System. Committee on Quality of Health Care in America, Institute of Medicine. Nov 1999.

2. Lockwood L, Sabharwal R, Danoff D, Whitcomb M. Quality improvement in medical students' education: the AAMC medical school graduation questionnaire. Medical Education 2004;38:232-8.

3. Halbach JL, Sullivan LL. Teaching Medical Students about Medical Errors and Patient Safety: Evaluation of a Required Curriculum. Academic Medicine June 2005;80(6):600-606.

4. Aron D, Headrick LA. Educating physicians prepared to improve care and safety is no accident: it requires a systematic approach. Quality and Safety in Health Care 2002;11:168-73.

5. Kerfoot BP, Conlin PR, Travison TT, McMahon GT. Patient safety knowledge and its determinants in medical trainees. Journal of General Internal Medicine 2007;22(8):1150-54.

6. Association for Medical Education in Europe http://www.amee.org/ Accessed 13th August 2008

## KEYNOTE ADDRESS 07

### Interprofessional education – an important issue for future health care

**Sari Ponzer**

Interprofessional Education (IPE) is those occasions when members (or students) of two or more professions learn with, from and about each other, to improve collaboration and the quality of care. Health care is managed by professionals who work in teams even if most of our students are still educated in their own “silos”. However, interprofessional learning (IPL) activities have become more common and the speaker will give an overview of present knowledge of IPE/IPL. Experiences from Karolinska Institutet, Stockholm, Sweden, will exemplify how IPE can be managed for undergraduate students and for students during specialist training. Learning together promotes team work and aims also to enhance patient safety and good patient care.

## KEYNOTE WORKSHOP 07

### Facilitating Interprofessional teams

**Sari Ponzer**

This workshop is about how a group of people, for example students from different health care educations, can be facilitated in their development towards a well working team. Theoretical background and practical exercises with the participants are included. Small group discussions will be an important part of the workshop.

**W 01**

**Clinical ethics teaching workshop: using narrative and critical reflection approaches**

**Dr Clare Delany, Associate Professor Lynn Gillam**

Ethics education is recognised as an integral component of all health professionals' education and an important method of integrating ideals of professionalism and clinical competence. Although acknowledged as a core aspect of healthcare curricula, approaches to teaching ethics are variable and there is very little evidence that teaching biomedical ethical theories and ethical decision-making result in more ethical practice and/or provide clinicians with necessary skills and knowledge to face clinical ethical dilemmas. Both narrative and critical reflection approaches to ethics education involve the use of stories, either personal or from works of literature, to encourage ethical awareness, reflection, and the acquisition of humane values.

The central idea of these approaches is that ethical practice in the health professions requires not simply ethical decision-making skills, but the more fundamental set of attitudes and skills of ethical mindfulness. Use of personal narrative is a powerful tool for achieving ethical mindfulness, by promoting ethical sensitivity, self-awareness and reflexivity (Guillemin and Gillam 2006). Students are facilitated to tell, write and analyse their own stories, using guide questions to open up their perspectives and integrate the insights gained. The outcome is increased capacity for critical reflection in relation to ethical practice, and increased awareness of its importance.

Some key elements of the narrative approach have been evaluated through a critical reflection program for physiotherapy students' first clinical placements. Students identified that the narrative based critical reflection sessions provided a language and structure to address management of hierarchical relationships, and ways of communicating with supervisors, other health professionals (Delany and Watkin 2008).

The narrative ethics approach has also received peer recognition through a Carrick Excellence in Teaching award to Lynn Gillam and Marilys Guillemin in 2007. This award acknowledges the innovative teaching methodology and its extremely positive impact on the learning experiences of their students.

**Objectives of this workshop are to:**

1. Present the theoretical frameworks that underpin narrative and critical reflection approaches to ethics education
2. Outline a narrative ethics clinical education program suitable for a range of health professional disciplines
3. Provide an opportunity for participants to experience the narrative ethics teaching approach
4. Enable participants to identify how they could incorporate narrative ethics as a teaching approach in different clinical education settings and between different disciplines.

**Intended audience:**
Academic and clinical educators in medicine, nursing and allied health disciplines.

**Instructor's qualifications and prior experience in similar presentations:**
Dr Clare Delany is a Senior Lecturer in the School of Physiotherapy at the University of Melbourne and a Clinical Ethics Fellow at the Children's Bioethics Centre at the Royal Children's Hospital (RCH) in Melbourne, Australia. Dr Delany is an experienced educator in areas of clinical ethics and critical reflection both nationally and internationally. She has developed and delivered workshops for clinical educators and physiotherapy students in the Monash Physiotherapy School in Melbourne and in the clinical education program at the School of Physiotherapy at the University of Melbourne. In the area of medical education, she has developed and delivered ethics education workshops and seminars for the School of Medicine at Monash University (Malaysian and Gippsland programs). Recent conference workshop presentations include an ethics education seminar with colleagues from Australia and America at the World Congress of Physical Therapists in Vancouver in 2007, and in 2008, an invitation to deliver a clinical education workshop in the role of critical reflection, at the Australian Physiotherapy Association National Congress.

As a Clinical Ethics Fellow at the Royal Children's Hospital, Dr Delany is involved in delivering clinical ethics workshops and seminars with a broad range of health professionals and clinical educators within the RCH. In 2008, Dr Delany, Associate Professor Gillam and Associate Professor Guillemin obtained a Teaching and Learning Grant from the University of Melbourne titled 'Enhancing and sustaining clinical ethics teaching in the faculty of Medicine, Dentistry and Health Sciences: The Narrative ethics education training program.

**References:**
Guillemin, M & Gillam, L. (2006). Telling Moments. Everyday ethics in health care. (Melbourne IP Communications).

Delany, C & Watkin, D. (2008). A study of critical reflection in health professional education:'Learning where others are coming from.' Advances in Health Sciences Education. www.springerlink.com/content/v05423601p317432/

**W 02**

**On-line teaching for technophobes!**

**Janet Hunter, Maggie Nicol, Natasa Perovic**

Universities providing healthcare education in the UK are coming under increasing pressure to provide support for a diverse range of students with varying educational backgrounds and differing learning needs. In addition, changes in skill mix mean that clinical placements are finding it increasingly difficult to provide the necessary level of student teaching and supervision. This means that universities are required to provide more opportunities for learning in skills labs and simulation suites, both of which are in high demand and resource intensive.

The need to develop a flexible approach to learning and provide examples of best practice in peri-operative care led to the development of a DVD and workbook, which were highly evaluated but cost pressures meant that we were no longer able to provide individual copies to students. This prompted us to adapt the workbook and video to develop an interactive programme. The output is in flash format and optimised for web-delivery, but can also be delivered from a CD, USB flash memory or any VLE.

In order to prepare the learning material for internet delivery the following basic steps were necesssary:

- Workbook content was adapted to suit online delivery and provide necessary information to enable students to follow and learn about the topic,

- The DVD was cut into appropriate chapters/ sections and imported into a more suitable format

- Original workbook questionnaires were adapted and online quizzes produced in order to enable students to test their knowledge.

Using the peri-operative care programme as an example, this workshop will demonstrate the process of turning a workbook and DVD into an interactive online programme that demonstrates best practice and allows students to test their learning. The software used (Articulate Studio™) has been very well received by academics as it is user-friendly and requires minimal training (typically 1-2 hours). The success of the peri-operative care learning package has led to a great deal of interest and the development of a range of learning materials on clinical and communication skills (www.cetl.org.uk/learning).

If a computer suite is available for the workshop attendees will be able to experience using 'Articulate Studio™' to make an interactive presentation using their own materials or those supplied by the presenters. If no computer suite is available, the 'hands on' aspects will be in small groups each sharing a laptop computer.

**Objectives:**
No prior knowledge is required. In this workshop participants will:

- Identify the benefits of flexible, interactive learning
- Understand the main features of Articulate Studio™
- Use Articulate Studio™ software to create an interactive online learning resource from a PowerPoint presentation or workbook/guided learning

**The presenters:**
Janet Hunter (Lecturer in Adult Nursing) and Maggie Nicol (Professor of Clinical Skills) will discuss the pedagogical issues. Natasa Perovic (Learning Technologist) will lead the technical part of the workshop, something she does on a regular basis at our Centre for Excellence in Teaching & Learning (www.cetl.org.uk).

**W 03**

## Development and implementation of an operating room etiquette course for medical students

**Lead:**
**Catherine F Kellett BSc, BM, BCh, FRCS (T&O), Consultant Orthopaedic Surgeon, NHS Tayside, Consultant and Honorary Senior Lecturer in Medical Education, University of Dundee**
**Co-Authors:**
**K J Stirling BN, RGN, R McLeod, MSc, RGN, J Dent, MMEd, MD, FHEA, FRCS(Ed), P Boscainos, MD, FRCS(Ed)**

**Objectives:**
Increase knowledge of infection control and theatre etiquette.
What medical students need to know to attend theatre safely (patient safety).
Awareness of stresses experienced by students attending theatre for the first time.
Experience of online learning material.
Methods of providing consistent teaching in a whole region and across undergraduate and postgraduate stages.
Understanding of the multiple cooperations this course demonstrates (NHS and University, Undergraduate and postgraduate, University and Royal College, Nursing and Medical).
Participants will be given the opportunity to take part in a research questionnaire at the beginning and end of the workshop.

**Intended Audience:**
Anyone involved in healthcare education.
No previous experience required.

**Abstract:**
A recent infection control review in NHS Tayside commented that medical students who have no formal training in operating room etiquette could pose a significant infection risk to patients undergoing total joint arthroplasty. Medical students currently have no formal teaching in scrubbing and gowning for the operating room (OR). The students report high levels of stress when they are asked to scrub and gown for the OR. We implemented a new OR etiquette course for the medical students in which they learn scrubbing, gowning and gloving. This workshop demonstrates how 160 students can be taught OR etiquette in one day with minimal resources and staff. It also outlines the need for consistent teaching from undergraduate to postgraduate level and good collaboration amongst University, Royal College, Medical staff, Nursing staff and students. It will explore how to create a more positive learning environment in the OR.
Knowledge of infection control and OR etiquette.

What medical students need to know to attend OR safely (patient safety). What students want to know before attending the OR. Awareness of stresses experienced by students attending the OR for the first time. Experience of online learning material. Methods of providing consistent teaching in a whole region and across undergraduate and postgraduate stages. Interprofessional teaching. The new OR etiquette course and research will be demonstrated. Participants own experiences in the OR will be explored with the opportunity to create their own learning material. The OR as a learning environment will be discussed. Methods of overcoming barriers to learning will also be explored. The workshop will consist of PowerPoint presentations, videos, group discussions and tasks. Online material will be viewed. Participants will be given the opportunity to take part in a research questionnaire at the beginning and end of the workshop.

**References:**

1. Fernando N, McAdam T, Cleland J, Yule S, McKenzie H, Youngson G. How can we prepare medical students for theatre-based learning? Med Educ. 2007 Oct; 41(10):968-74.

2. Stark P. Teaching and learning in the clinical setting: a qualitative study of the perceptions of students and teachers. Med Educ. 2003 Nov; 37(11):975-82.

3. Lyon PM. Making the most of learning in the operating theatre: student strategies and curricular initiatives. Med Educ. 2003 Aug; 37(8):680-8.

4. Lyon PM. A model of teaching and learning in the operating theatre. Med Educ. 2004 Dec; 38(12):1278-87.

5. Fernando N, McAdam T, Youngson G, McKenzie H, Cleland J, Yule S. Undergraduate medical students' perceptions and expectations of theatre-based learning: how can we improve the student learning experience? Surgeon 2007 Oct; 5(5):271-4.

**Instructor's Qualifications and Experience:**

A Medical graduate from the Universities of St Andrews and Oxford, UK. Orthopaedic Surgery training in Oxford with Fellowships in Geneva and Toronto. Now a Consultant Orthopaedic Surgeon in NHS Tayside and Consultant and Honorary Senior Lecturer in Clinical Skills at University of Dundee. Have designed and researched the theatre etiquette course. Have taught as faculty on RCSEd Basic Surgical Skills Courses and RCSEd Hip and Knee arthroplasty courses. Instructor on international orthopaedic courses. Run staff development workshops in NHS Tayside.

**Maximum Participants:**

40

**Faculty:**

C F Kellett, Consultant Orthopaedic Surgeon, NHS Tayside, Consultant and Honorary Senior Lecturer in Medical Education, University of Dundee.
K Stirling, Senior Clinical Skills Tutor, Clinical Skills Centre, University of Dundee.
R McLeod, Senior Clinical Skills Tutor, Clinical Skills Centre, University of Dundee.
P Boscainos, Consultant Orthopaedic Surgeon and Surgical Teaching Lead, NHS Tayside

**Assistants:**

R.Mehdian and J.L.Nutt, Medical Students, University of Dundee.

**W 04**

**Developing regional priorities as part of an interprofessional clinical skills strategy using simulated scenarios**

**Related themes:**
How can clinical skills improve patient safety
Interprofessional collaboration?

**Ker J., O'Neill A., Skinner J., Morse G., Stevenson J., Cachia P.**

**Workshop Objectives:**
At the end of the workshop participants will:

- recognize some of the challenges of developing a regional interprofessional clinical skills strategy
- have developed an action plan of clinical skills priorities for a simulated regional scenario
- be able to identify key steps in the process of developing an interprofessional skills strategy for their own setting

**Background:**
Clinical skills education is a priority for many healthcare systems. Drivers for change include public expectation, the 'patient safety' agenda, increased interprofessional working, reduced training time, regulatory changes and technical developments. Consistent standards of clinical skills education and practice will help ensure that patients receive high quality care irrespective of the healthcare setting or practitioner (1). There is increasing evidence that behaviours observed in a simulated clinical setting can predict how professionals will behave in the reality of practice (2). Simulation provides an opportunity to practice the components of clinical practice in a structured way ensuring that practitioners have rehearsed both technical and non technical skills prior to the reality of health care delivery(3). This principle can be transferred to rehearsing the development of an interprofessional strategy for determining skills priorities.

**Workshop Overview:**
Two short introductory presentations will report a case study of the development and implementation of a regional interprofessional clinical skills strategy.
Each participant will be given a strategic role in a skills task force for one of 3 simulated geographical region. The task force will be a pack of relevant information in relation to their:

- population profile
- health care workforce
- policy drivers in healthcare
- current skills facilities and programmes

Each skills task force will be tasked to report back on the following

1 Thinking of the big picture for clinical skills in your region what 3 things could the strategy deliver that would make a difference to staff and patients in your region in the next five years

2 Thinking of the medium term what would your 3 priorities be over the next two years for the regional steering group to support the development of:

- a quality assurance system to enhance skills transferability
- new skills education resources for new role development
- training the trainer

3 What specific actions (up to 5) will you have achieved in your region by June 2010 in relation to:

- quality standards
- course delivery
- increased clinical skills training provision ensuring both professional and geographic access

**References:**
1. The Scottish Clinical Skills Strategy Partnerships for care (2007) NHS Education for Scotland
2. Weller J Wilson L Robinson B ( 2003) Survey of change in practice following simulation based training in crisis management Anaesthesia 58: 471-33.
3. Ker J., Bradley P., (2007) Simulation in Medical Education Understanding Medical Education Series ASME.

**W 05**

**Setting up a simulated patient (SP) programme**

**Ms Debra Kiegaldie, Ms Sheryl Cardozo**

**Synopsis:**
This workshop will provide delegates with the opportunity to explore the practical issues related to establishing a simulated patient programme from conception to implementation and evaluation. An overview of best practice principles and current international trends will be presented along with the opportunity for participants to work either individually or in groups to plan a new programme or develop an existing one.

**Key considerations will include:**

- Developing the vision and creating the strategic plan
- Identifying and engaging stakeholders
- Implementing and evaluating the programme

**Specific considerations will include:**

**Recruitment issues:**
- Who can be used as SPs?
- Strategies for recruitment and retention Training issues:
- What type of training is needed?
- Who should provide the training?

**Administration issues:**
- Coordination and management of the programme
- Resources and budget
- Practicalities and logistics about delivering the service

**Brief Biography:**
**Ms Debra Kiegaldie:** Debra has a background in intensive care nursing and has developed and delivered a range of staff development programs in health professional education for the past 7 years. She currently coordinates a Graduate Certificate in Health Professional Education at Monash University. She has significant experience in the areas of simulation, simulated patients and interprofessional learning and has spent the past year conducting teacher training workshops throughout metropolitan and regional Australia.
**Ms Sheryl Cardozo:** Sheryl coordinates the simulated patient program at Monash University. She has extensive experience in the US in the performing arts, as a simulated patient and a clinical teaching associate in women's health and is an experienced educator with a Master of Education from Harvard University.

**W 06**

**Clinical skills investigation-practice to reality**

**Merriman C and Ricketts B**

**Introduction and Rationale:**
In an attempt to bridge the theory-practice gap, Health Educators are increasingly being required to educate Health Care Professionals to develop high dependency clinical skills in designated skills laboratories or simulation centres. These are seen to provide a safe environment for learning and the assessment of clinical and communication skills through simulation (Scott 2001, Nicol and Freeth 1998, du Boulay and Medway 1997). Health care students and qualified Health Care Professionals often express concerns regarding linking theoretical classroom sessions with the realities of practice. Any additional discrepancies experienced between taught clinical skills and observations by students can cause them extra stress.

**Format of Workshop (90 minutes):**
This workshop provide an opportunity for the audience to utilise low to medium fidelity simulation either by participation or observation of the assessment of a patient using the ABCDE approach and track and trigger system (NICE 2007). The facilitators of the workshop will illustrate how medium fidelity simulation with minimal resources can encompass dynamic psychomotor and cognitive skills through the use of simulation learning objectives. The workshop will follow the format of 3 separate assessment stages which will involve assessment and intervention of a critically ill patient followed by guided reflection to assist in consolidation of related theory and practice learning. Following the simulation demonstration the audience will be invited to engage in a debate on how the investigation of critical care skills can help link theory with practice, and reaffirm learning in preparation for the reality of clinical practice.

**Target Audience:**
Health care professionals who use or wish to use low/medium fidelity simulation in their curriculum or training programmes to supplement high dependency assessment skills.

**Workshop Aims and Learning Outcomes:**
- Demonstrate engaging ways of linking theory with practice through simulation
- Demonstrate the features required in simulation in order to link theory with practice
- Highlight the challenges in relation to linking theory with practice

- Enhance the skills and broaden the perspectives of participants with respect to linking theory with practice using simulation

**References:**

du Boulay, C. and Medway, C. (1999) The clinical skills resource: a review of current practice. Medical Education Vol. 33 pp189-191.
NICE (2007) Acutely Ill Patients In Hospital. Recognition and response to acute illness in adult in hospital, Available at www.nice.org.uk
Nicol, M. and Freeth, D. (1998) Assessment of clinical skill: a new approach to an old problem. Nurse Education Today Vol. 16 pp121-126.
Scott, C. (2001) Back to Basics. Nursing Management Vol. 8 No. 5 pp17-19.

**W 07**

**Simulated patient training for patient focused simulations in procedural skills**

**Nestel D**

Patient focused simulation (PFS) describes scenario-based assessments with a professional actor (Simulated Patient - SP) in each encounter recreating the 'realistic unpredictability' of clinical practice. The trainee is provided with an opportunity to rehearse the complex sets of skills required to perform procedural skills safely. The SP is combined 'seamlessly' with simulator kit in a quasi-realistic setting providing conditions that approximate real clinical practice. The presence of an SP taps into trainees' actual practice and enables feedback on subtle interpersonal interactions as well as dexterity skills associated with the technical elements of performing the procedure.

PFS resonates with contemporary thinking around simulation, workplace based assessment and contextualisation of healthcare learning. It offers a conceptual framework that moves beyond the simple repetition of technical elements of tasks addressing challenges of real practice.

The Integrated Procedural Performance Instrument (IPPI) consists of procedural skills scenarios, each combining an SP with a simulator or medical equipment. Scenarios are assessed from multiple perspectives - patient, trainee and clinical assessor [1]. Trainee-focused feedback is provided via an electronic assessment system. This multi-layered feedback is available online locating the locus of control with the trainee [2].

Although background information is important for appreciating the context in which this work is situated, the focus of the workshop will be on preparing SPs to participate in PFS for procedural skills. A four-stage approach to training SPs will be illustrated and will require participation from attendees throughout.

After participating in the workshop, partticipants will be able to:

1. Describe the preparation of SPs for PFS - role acquisition and feedback

2. Outline the concept of PFS, the IPPI and underpinning education theory

3. Describe the process for writing scenarios

**Intended audience:**
Delegates with an interest in simulation, SPs,

procedural and communication skills training. Any level of experience is appropriate.

**Instructor's qualifications:**
This training has been offered in many parts of the world as invited or peer reviewed submissions. Although based at Gippsland Medical School, the instructor continues to work closely with her colleagues at Imperial College where the concept was developed.

**References:**
1. Kneebone, R., et al., Assessing procedural skills in context: Exploring the feasibility of an Integrated Procedural Performance Instrument (IPPI). Medical Education, 2006. 40(11): p. 1105-1114.

2. Nestel, D., et al., Remote assessment and learner-centred feedback using the Imperial College Feedback and Assessment System (ICFAS). The Clinical Teacher, 2008. 5: p. 88-92.

**W 08**

**Moving away from coloured 'post-it notes': making sense of qualitative data**

**Jenny Newton & Cherene Ockerby**

**Abstract:**
Translating volumes of qualitative data into a practical and manageable media can, at times, be fraught with difficulties. How do you maintain your audit trail, keep track of annotations and ideas, recall where an interview transcript is saved? Confronted with how to manage the extensive amount of data for a three year longitudinal project, we recognised the need for a practical solution. Through attendance at workshops conducted by QSR International (the company that developed the NVivo software) followed by one-on-one consultations we have honed our skills in using NVivo 8.

This workshop is designed to introduce the researcher to working with large volumes of qualitative research data with the support of software. Drawing upon our experiences of working with NVivo 7 and 8, we will impart our pearls of wisdom. We will share how you can move away from reliance on coloured post-its and decorating your kitchen wall to a sophisticated electronic version still with all the colours! The tedium of transcribing audio-files can be a dinosaur of the past due to the advancement of the current software. Keeping track of all research data is no longer a headache as NVivo offers a system to manage all your research material.

**Format:**
The workshop will comprise an interactive activity using qualitative data from an Australian Research Council Linkage project on workplace learning in nursing. Workshop participants will be given a brief tour of NVivo 8 and an overview of how we have used it for our research. Participants will be provided with data to manually code and then see how this data analysis can be translated into NVivo 8

**Workshop objectives:**
- To share ideas with each other about the challenges of working with large quantities of qualitative data
- To provide experience of working with NVivo8
- To network with other academics and practitioners interested in developing their knowledge and understanding of using qualitative software to support data analysis

**Intended Audience:**
This workshop is designed for expert and beginner researchers alike who wish to enhance their understanding of data analysis using NVivo 8 software. The maximum number of participants for this workshop will be 30.

**Equipment:**
We will provide a laptop computer which has the NVivo 8 software installed. We do require a data projector, butcher paper and appropriate textas/ pens.

**Presenters' experience:**
Jenny is a highly skilled qualitative researcher with over ten years experience in qualitative analysis. Over the past three years, Cherene has stepped out of her quantitative comfort zone to embrace qualitative data analysis using NVivo.

**W 09**

**Seeing something new: teaching clinical reasoning through use of portraiture**

**Natalie Radomski and Pam Harvey**
**Monash University, School of Rural Health**

**Workshop Objectives**
1. To explore the use of portraiture as a relevant and effective educational strategy to assist in the development of clinical reasoning.
2. To experience a range of learning and teaching strategies designed to enhance visual observation and clinical reasoning skills through the medium of the arts.
3. To develop a framework for the use of portraiture to enhance clinical reasoning, clinical observation and encourage reflection on aspects of clinical practice.
4. To identify strategies to advance current approaches to clinical skills teaching drawing on participants' examples of good practice and insights from the medical humanities field.

**Intended audience:**
Clinical educators, health professionals and educational program managers working with undergraduate and postgraduate students in the medical, nursing and allied health fields. No previous experience in the arts or humanities is required.

**Abstract:**
"The way we see things is affected by what we know or what we believe"
(John Berger, 1972)
The use of medical humanities in teaching is of growing interest in medical education, with many universities incorporating it into their curricula particularly in the areas of clinical reasoning, ethics and professionalism. In this workshop, the emphasis will be on exploring strategies for teaching clinical reasoning that try to make explicit the skills of 'careful looking' or 'close noticing'. A selection of digital images and prints of contemporary and historical portraits will be used to capture aspects of 'patients' in 'frozen moments'. Participants will then be asked to formulate clinical reasoning responses to specific questions from the workshop facilitators. The aim of this teaching strategy is to encourage students to recognise patterns, 'see' and appreciate the patient/client situation within a broader social context. The outcomes of workshop discussions will be to reflect on how observation is influenced by experience, knowledge and professional role, and that the appearance of a person and their surroundings is important to the holistic perception of the patient as a human being. We suggest that the use of the visual arts in clinical

teaching can help students become more precise in describing what they observe in their clinical interactions with real patients - noticing body language, gesture, emotion and character - and begin to have an understanding of what may be symbolically important to that person. Listening to and observing a patient, noting more than their signs and symptoms, draws on an aesthetic knowledge and practice that can be developed by embedding the humanities into the curriculum. Engaging in shared conversations about holistic patient care creates a space for students and experienced clinicians to reflect on their own professional role and those of others, in an interdisciplinary approach to patient care.

**References:**

Gordon, J. & Evans, H. (2007). Learning medicine from the humanities. Association for the Study of Medical Education.

Boisaubin, E. & Winkler, M. (2000). Seeing patients and life contexts: The visual arts in medical education. American Journal of Medical Science, 319, pp.292-6.

**Summary of instructor's qualifications and experience:**

**Ms Natalie Radomski: Dip Lib, BA(Lib), Grad Dip Ed, M Ed, D.ED(Research) in progress**

Natalie is the Head of the North West Rural Medical Unit in the Monash School of Rural Health (SRH) and has responsibilities in the areas of educational development, curriculum development, educational research and program evaluation across SRH, Regional Clinical School sites in North Western Victoria. Prior to joining the SRH, Natalie co-ordinated the Learning, Development and Community Practice Program at the Centre for Adolescent Health, University of Melbourne. Natalie has also worked as a lecturer in the Education Faculty and Centre for Learning and Teaching at the University of Ballarat where she taught in the Graduate Certificate in Education (Tertiary Education) and Masters of Education Courses. Natalie's Doctoral research is exploring interdisciplinary approaches to professional learning and practice decision-making in complex health settings.

**Ms Pam Harvey: B.App. Sci (Physio), M.Ed (research) in progress**

Pam is a physiotherapist who joined Monash University, North West Rural Medical Education Unit in the School of Rural Health in 2007 as a lecturer. She has responsibilities for academic support, curriculum development, educational research and program evaluation in the Regional rt, curriculum development, educational research and program evaluation in the Regional Clinical Schools of Bendigo and Mildura. Pam's previous employment was with Monash University, School of Rural Health, Office of Research (2006-2007) as a research assistant. Prior to joining Monash, Pam worked in a range of community physiotherapy jobs including chronic disease management, work rehabilitation and private practice. Pam has also worked as a lecturer at TAFE (2001-2006), taking classes in the Diploma of Professional Writing and Editing. As well as being a health professional, Pam is the author of thirteen children's books, and writes regularly for a range of magazines and journals. She is currently a Master of Education (Research) candidate, researching bibliotherapy (the use of books) in helping adolescents manage their chronic illness.

**Prior experience in similar presentations:**

Natalie and Pam have facilitated a number of workshops in the Monash School of Rural Health for clinical educators involving the medical humanities, particularly in the use of portraiture and narrative. Aspects of their workshops have been used as teaching strategies in Monash University's Graduate Certificate of Health Professional Education, for which they are both lecturers.

**W 10**

**Partners in education: developing reusable learning objects to enhance student nurses' cultural competencies and engagement with mental health service users**

**Lisa Reynolds and Julie Attenborough**

The Heartsounds project brought together mental health service users from an inner city mental health trust to Uganda to meet with their Ugandan counterparts and to obtain mutual insights into mental health service users experiences in both countries. The inner city mental health trust has developed a link with a hospital in Uganda for the past four years. In 2008 mental health service users and providers from the mental health trust visited the service in Uganda. A 30 minute documentary film was produced in collaboration with the School of Community and Health Sciences, City University to record this visit and to provide materials which could be developed into reusable learning objects for mental healthcare education.

The authors have previously undertaken an online learning project involving mental health service users and student nurses (Simpson et al 2007). The evaluation of this project identified particular strengths in the use of online methods for teaching and learning in partnership with service users. Using an asynchronous online discussion forum rather than engaging in face to face discussion enabled students to consider their responses and gain confidence in their communication skills.

An opportunity was identified to work collaboratively with mental health service users and providers to build upon the previous project and create reusable learning objects to develop cultural competencies. This workshop will outline the ways in which this was achieved and will give participants an insight into working collaboratively with service users to develop teaching and learning tools. The workshop will demonstrate current use of reusable learning objects in healthcare education at City University. The workshop will give participants the opportunity to explore ways in which they might utilise this approach in their own practice.

**References:**

Simpson, A., Reynolds, L., Light, I., Attenborough, J. Talking with the Experts: Evaluation of an online discussion forum involving mental health service users in the education of mental health students. Nurse Education Today (2007), doi: 10.1016/ j.nedt.2007.09.009

- The intended audience is clinical staff and health care education staff and service users.
- Julie Attenborough is Senior Lecturer in the Educational Development Unit at City University, School of Community and Health Sciences. She has responsibility for e-learning and is Programme Director for a BSc Health Sciences programme that is delivered entirely on-line. She has developed a CD ROM for mental health workers in primary care and interprofessional videos for nursing and medical students. Summary of the instructor's qualifications or prior experience in similar presentations
- Lisa Reynolds is a lecturer in mental health at the Department of Interprofessional Studies and Professional Practice at City University, School of Community and Health Sciences. Lisa is the associate programme director for the pre-registration mental health programme at City University. Lisa is a member of an international group who have developed educational resources for people working with incarcerated women.
- The maximum number of participants is 20 and computer/internet access will be required for the workshop.

**W 11**

**Cancel all leave; major incident in progress**

**Workshop:**
Teaching the complexities of multi agency response

**Alna JP Robb and Peter JM Barton**

**Background:**
Major incidents (events that owing to the number severity, type or location of live casualties require special arrangements to be made by the health services) are not high on the agenda of undergraduate healthcare programmes. This situation is mirrored in postgraduate education 1 (Fung et al 2008). As any doctor or nurse can be involved in a major incident or disaster at any time, basic knowledge in disaster medicine must be included in undergraduate curricula 2 (Lennquist 2005).

Collaboration with other agencies (fire and rescue, police and ambulance) is vital to understand how those organisations work, their potential contribution and limitations of their role 2, 3 (Lennquist 2005, Silenas et al 2008).

In 2008 Glasgow University adopted an innovative approach, replacing its traditional lecture based presentation with an experiential one, involving direct multi-agency working with staff at similar developmental levels to our final year medical and nursing students, to facilitate an awareness of major incident/civil contingencies management.

Evaluation of this approach was highly positive. Students felt they had gained appreciation of the need for effective liaison

**Purpose:**
This workshop emulates this creative approach. It will begin with a 10 minute presentation to raise awareness of the techniques used. Thereafter participants will be assigned stakeholders roles and the mock exercise similar to our course exercise will be run (in real time).

**Workshop Learning Outcomes:**
1. To provide participants with direct experience of running a table top exercise.

2. To enable participants to evaluate the resource implications, logistics, benefits, and opportunities for understanding of multi-agency working through introducing Table Top exercises into undergraduate teaching.

**Concluding discussion:**
Drawing on our academic and clinical experience of this program we will discuss:
- Integration of Civil Contingency management into undergraduate education

- Strategies for personnel and materials resourcing of teaching

- Various teaching models

**References:**
1. Fung O WM, Loke A Y, Lai CK (2008) Disaster preparedness among Hong Kong nurses. Journal of Advanced Nursing Vol. 62, Number 6

2. Lennquist S (2005) Education and Training in Disaster Medicine. Scandinavian Journal of Surgery 94:300

3. Silenas R, Akins R, Parrish AR, Edwards JC (2008) Developing Disaster Preparedness: An Experiential Learning Exercise for Multiprofessional Education. Teaching and Learning in Medicine, 20 (1)

**Further note to peer reviewers:**
Though it is most desirable to maximise participant learning to do this as a practical exercise were it not to be possible to provide this workshop we would ask for an opportunity to resubmit it as a poster.

**W 12**

**An interprofessional multimedia approcach to teaching medical students how to manage challenging behaviours**

**Helen Simpson, Nicky Hudson, Jennifer Harland**

**Workshop Abstract:**
Health professionals often find themselves dealing with challenging behaviours in a variety of settings. This can include patients who are anxious, resistant, disgruntled, aggressive and/or intoxicated, and result in a difficult situation for both the health professional and patient. To promote positive patient outcomes and facilitate a safe environment, it is essential that medical students acquire the core knowledge and skills needed to recognise and effectively manage challenging situations.

The integrated curriculum in the four-year graduate entry MBBS programme of the Graduate School of Medicine (GSM) at the University of Wollongong, includes case-based learning and early clinical skill development, not only in the Skills Centre, but also in general practice and hospital placements. The 'real world' practice experience helps medical students to link theory to practice through elaboration and application1. Concurrent with hospital speciality terms, year 2 students complete an innovative Clinical Skills session to develop the core competency of 'managing challenging behaviours'. Using a drug and alcohol theme and multi-media and high fidelity simulation resources, student learning is facilitated by an interdisciplinary approach to the skill of 'managing challenging behaviours'.

This conference workshop will consist of two parts. Following an introduction, participants will actively take part in the learning activity as it was presented to the medical students using a variety of resources. Secondly, the participants will work in small groups to critique the learning activity and offer suggestions for alternative teaching and learning strategies or resources. This part will conclude with a large group discussion, summing up and workshop evaluation.

**Reference:**
O'Neil P., Willis, S. and Jones A. (2002). "A model of how students link problem based learning with clinical experience through elaboration." Academic Medicine, vol 7, No 6, pp 552-560

**Workshop Learning Outcomes:**
By the end of the workshop participants should be able to:

- Construct a conceptual framework for the development and delivery of teaching 'managing challenging behaviours'.

- Develop a learning activity to help students
  - o recognise early warning signs of escalating anxiety, anger and violence in a clinical consultation and
  - o identify appropriate preventative strategies to support a non-threatening clinical consultation

- Discuss the benefits of using an interdisciplinary approach to teaching managing challenging behaviours

- Critique learning outcomes and strategies for teaching managing challenging behaviours

**Workshop Participants:**
There are no prerequisites for the workshop and both novice and experienced educators or clinicians will be able to make a valuable contribution to session outcomes. Depending on previous experience, participants will share or acquire skills, resources and ideas for clinical skills competency development which could be applied to other health professional programmes. This workshop may also facilitate potential research collaborations.

**W 13**

**Designing and developing patients as educators programme**

**Patsy Stark, Martin Hague**

**The objectives are to encourage participants to:**

1. Develop an understanding of the opportunities that a Patients as Educators programme presents within the context of curriculum development and changing healthcare delivery

2. Determine some generalisable principles about the safe and effective involvement of patients as educators

3. Share experience and expertise and network informally

4. Listen to the stories of some of the Sheffield Patients as Educators group who will share their experiences

**Intended audience (experience level and pre-requisites):**
The workshop is intended for healthcare professionals who are interested in developing or expanding a patient involvement programme to support clinical education and training. There are no pre-requisites to attendance.

In many countries changes in the heath services and the expectations of patients have impacted on the range of appropriate patients students see in hospitals. The reduction in the length of hospital stays and the specialisation of care further limits students' exposure to the core clinical cases that most curricula define.

Traditionally students have seen patients in hospital, outpatients departments or general practices. Learning from these encounters requires students to be able to balance their own educational needs with the clinical, physiological and psychological needs of the patient.

Key stakeholders in medical education are the patients themselves. Patients are now more knowledgeable about their own conditions and are encouraged to be active partners in healthcare services[1]. The idea of the expert patient is becoming firmly embedded in health policy and medical education goals and practice[2]. The Picker Institute, Europe[3] argues that, "Greater use should be made of patients as teachers. Both real and simulated patients have a potentially useful part to play in medical education and there is considerable scope for extending and developing their role."

If there are difficulties for students in seeing appropriate patients, for sufficient time, and there are patients who know a great deal about their condition and are in a stable clinical condition and happy to share their experiences, then it seems rational to try to mediate to bring them together in a physically and emotionally safe environment for both students and patients

The involvement of patients as educators demonstrates a commitment to the partnership between the medical school and the community to enable healthcare students understand the full social, psychological and clinical needs of the patients they will serve.

This workshop will allow participants to work through the processes of establishing an effective and ethical programme.

**References:**
1 NHS Centre for Involvement: http://www.nhscentreforinvolvement.nhs.uk (accessed 10.10.08)

2. Spencer J, Blackmore D, Heard S, McCrorie P, McHaffie D, Scherpbier A, Sen Gupta T, Singh K, Southgate L (2000) Patient-oriented learning: a review of the role of the patient in the education of medical students Medical Education 34: (10), 851–857

3. Haslam A, Coulter A and Askham J (2006) Education for partnership: developments in medical education

http://www.pickereurope.org/Filestore/Publications/E4P_report_19-5-06-_with_cover.pdf.pdf (accessed 15.10.08)

**W 14**

**Lets develop a clinical skills centre!**

**Patsy Stark, Martin Hague, Janet Jones**

The objectives are to encourage participants to

1. Develop an understanding of the curricular and operational elements in the development of a clinical skills centre

2. Share experience and expertise and network informally (For those who do not have an in depth knowledge of their curriculum, a fictitious medical school's outcomes will be available to enhance the process.)

**Intended audience (experience level and pre-requisites):**
The workshop is intended for healthcare professionals who are interested in developing a clinical skills centre to support clinical education and training. There are no pre-requisites to attendance.

Clinical skills centres have become an important element in the development of safe and effective clinical skills for all healthcare professionals. They provide a safe and supportive learning environment and ensure:

- patients are protected from complete novices
- due consideration is given for issues of for patient safety
- adequate instruction time for core curriculum
- intimate examination techniques can be learned and practiced in a non-threatening way
- standardised teaching methods are employed
- opportunities for reflection & feedback
- a suitable space is available for clinical skills assessment

The need for this kind of teaching and learning environement is often determined by the healthcare school and the local healthcare delivery system. In some countries it is becoming ever more difficult for students to see patients in hospital settings because of the rapdid throughput of patients, the super-specialisation of some wards and the impact of senior doctor's changing contracts which may not include teaching.

There are significant benefits and costs to integrating a clinical skills centre into an institutional teaching portfolio. It is important that the skills centre meets local pedagogic requirements and that facilities and equipment is used effectively and economically.

In this workshop participants will be able to work through the development process using their own institution's curriculum as a basis or for those without that level of knowledge or expertise, the "Stellar University School of Medicine" curriculum as a model.

**Background and experience of leaders:**
Professor Patsy Stark is Professor of Medical Education at the University of Sheffield. As part of her role, she is the Academic Director of Clinical Skills and the Patient as Educators Programme.

She has led workshops at national and international conferences, including Prato 2005, and is a consultant for the World Health Organisation (Eastern Mediterranean Region) and the British Council in Egypt where she regularly leads workshops on aspects of curriculum development and clinical skills acquisition and assessment.

Mr Martin Hague is the Co-ordinator of the Sheffield Patients as Educators programme and formerly the Deputy Coordinator of the Clinical Skills Centre in Sheffield. He was a contributor to the Higher Education Council Subject Centre (MEDEV) workshop on involving patients as educators in October 2008 and co-led a workshop at the 2007 Prato Conference on the development of a clinical skills centre.

Ms Janet Jones is acting Co-ordinator of the Clinical Skills Centre at the University of Sheffield and is responsible for the day to day delivery and management of the clinical skills programme at the Centre.

**W 15**

**Is emotional intelligence a clinical skill?**

**Dr Anne Stephenson, MBChB, MRCGP, Dip. Obst., PhD (Medicine), FHEA, Director of Community Education**
**Professor Roger Jones, MA DM FRCP FRCGP FFPHM FMedSci FHEA, Wolfson Professor Department of General Practice and Primary Care, King's College London**

**Background:**
The term 'Emotional Intelligence' (EI) describes the ability 'to monitor one's own and others' feelings and emotions, to discriminate between them and to use the information to guide one's thinking and actions' (Mayer et al. 1990). Approaches to measuring EI have included self report-, informant- and ability-based assessments. Emotional Intelligence (EI) may be related to student characteristics, such as conscientiousness and empathy, and performance although few studies amongst health related undergraduates have so far been conducted.

**Workshop objectives:**

- To engage participants in the discussion of EI as a concept and as a clinical skill
- To identify strategies, if thought appropriate, to advance research into EI and the development of EI in our students

**Format and content:**
At the start of the workshop we will present the literature and a recent study we carried out in a London medical school investigating the association of EI with medical students' age, sex, ethnicity, and stage of study. A large group discussion will clarify and extend our thinking through insights and experiences from workshop participants. The group will then be divided into small groups to explore aspects of EI research and practice. Findings will be reported to the large group and suggestions made as to further developments.

**Participants:**
We ask for a minimum of ten and a maximum of 25 participants. This workshop will be of particular interest to clinical educators, health professionals and educational programme administrators interested in professional development in undergraduate medical education.

**Preparation:**
There will be some pre-workshop reading for participants.

**Evaluation:**
At the end of the workshop we will ask participants what they found most helpful and interesting and if there is anything they will do differently as a result of the workshop.

**Requirements:**
We will require a room for up to 30 people with space and moveable chairs to break into up to four groups. We will need an OHP, flipchart and pens, and PowerPoint equipment.

**W 16**

**How can quality be determined and assured within a postgraduate ward simulation exercise**

**Stirling K., Anderson F., Hogg G., Hanslip J., Kellett C., Byrne D., Smith D., Ker J.**

**Related conference category:**
How can clinical skills education improve patient safety?

**Outcomes:**
At the end of the session participants will:

- Have an understanding of the development process of the postgraduate simulation exercise to date.
- Understand which patient safety and quality assurance tools underpin the postgraduate ward simulation exercise.
- Gain experience of the assessment process currently utilised in a postgraduate ward simulation exercise.
- Assess and make recommendations through observing a postgraduate ward simulation exercise.

**Background:**
A small number of doctors will have behavioural, performance or educational difficulties during their training who may benefit from additional help. There is a need within the NHS to find effective and practical methods for assessing the performance of doctors. These methods have to identify those doctors who are underperforming and provide educators with methods to guide their interventions (1). The Postgraduate Ward Simulation Exercise (PgWSE) is a joint initiative between NHS education for Scotland (NES) and the University of Dundee. The Clinical Skills Centre, Ninewells Hospital, Dundee is the Scottish centre for the assessment and remediation for underperforming doctors.
The format of the PgWSE allows a panel of senior clinicians to observe and assess a doctor's practice within a realistic ward environment. The PgWSE is designed to be used for educational purposes and to inform high-stakes decisions.

The ward simulation exercise lasts for twenty minutes. During the exercise the doctor receives timed interruptions whilst dealing with a new admission, an emergency situation and a specific communication issue. The workload the doctor encounters during the ward simulation exercise is based on published research evidence and is comparable to what they would normally experience in their clinical practice. The doctor has the support of a qualified nurse and they have access to senior health care professionals. Following the exercise the doctor receives structured feedback and recommendations are forwarded to the referring Deanery.

**Workshop overview:**
Participants will be given an overview of the development of the postgraduate ward simulation exercise as a national strategy. Participants will be provided with an introduction to the assessment processes of the postgraduate ward simulation exercise. Participants will view two postgraduate ward simulation exercises and assess the doctors' practice using a global scoring tool. There will be discussion following each exercise to establish a consensus of opinion regarding the doctors' practice.

**References.**
Baker R., (2005) Can poorly performing doctors blame their assessment tools? http://www.pubmedcentral.nih.gov/picrender.fcgi?tool=pmcentrez&artid=558097&blobtype=pdf[ accessed [05.12.2008]

**W 17**

**Using simulated participants to teach how to conduct a difficult debriefing: an interactive workshop**

**Dr Neil Cunningham, Simulation Instructor, St Vincent's Education Centre, Melbourne; Victoria Australia**
**Mrs. Tess Vawser, Simulation Development Manager, Centre for Health Innovation, Melbourne; Victoria Australia**
**Ms. Debra Kiegaldie, Senior Lecturer, Centre for Medical and Health Sciences Education, Monash University Victoria Australia**
**Ms. Sheryl Cardozo, Simulated Patient Program Coordinator, Centre for Medical and Health Sciences Education, Monash University**

**Objectives:**
This workshop will provide participants with the opportunity to:

- Explore behaviours that commonly occur in the clinical simulation debriefing process;
- Discuss strategies that may be used to manage the difficult debrief;
- Apply methods of effective communication and debriefing skills during a simulated difficult debriefing encounter.

**Intended Audience:**
Participants with some experience in debriefing or those who teach others how to debrief. Experience in debriefing high-fidelity simulations is appropriate but not required.

**Abstract:**
Debriefing is a critical component for learning in simulation training. The unpredictable nature and reaction seeking process of both the scenario and debriefing can result in varying reactions from participants. The process therefore requires a specific set of skills for the simulation instructor. This workshop will explore behaviours that can occur during a simulation debrief. It will provide a number of practical strategies that may be employed to assist simulation instructors in managing difficult debriefing circumstances. Participants will explore components of the debriefing process, observe a high fidelity simulation scenario and a modelled debrief. Participants will then have the opportunity to participate in a difficult debriefing session working in facilitated small groups complete with simulated participants creating the challenging situations.

**Facilitators:**
A collaborative team will facilitate this workshop drawing from experiences and resources at leading simulation centres in Victoria, Australia.

**Key Facilitators:**
**Dr Neil Cunningham:** Neil is an Emergency Physician and experienced Simulation Instructor. He was a module author and facilitator for the Australasian College for Emergency Medicine Simulation Courses. He has extensive experience as a facilitator for Train the Trainer Simulation courses. His special interest is in difficult debriefing.

**Ms Tess Vawser:** Tess has an extensive background in hi fidelity simulation coordination and training of facilitators. In 2007 she was Project Manager for a State wide initiative to design, deliver and implement Basic and Advanced Clinical Skills and Simulation Facilitator's Courses, to over 220 Victorian clinical skills educators.

**Ms Debra Kiegaldie:** Debra has a background in intensive care nursing and has developed and delivered a range of staff development programs in health professional education for the past 7 years. She currently coordinates a Graduate Certificate in Health Professional Education at Monash University. She has significant experience in the areas of simulation, simulated patients and interprofessional learning and has spent the past year conducting teacher training workshops throughout metropolitan and regional Australia.

**Ms Sheryl Cardozo:** Sheryl coordinates the simulated patient program at Monash University. She has extensive experience in the US in the performing arts, as a simulated patient and a clinical teaching associate in women's health and is an experienced educator with a Master of Education from Harvard University.

**W 18**

**Teaching with peer physical examination: potential problems and solutions**

**Anna Vnuk, Charlotte Rees, Andy Wearn, Paul Bradley**

**Workshop objectives:**
Background to PPE
Teaching with PPE
Potential Problems
Solutions
Guidelines and Policies

**Intended audience:**
Those who have just implemented or plan to implement a PPE program in their health professional program

**Qualifications:**
Dr Anna Vnuk is currently the Director of the Clinical Skills Learning Unit at the School Of Medicine at Flinders University. She is Co-author with Charlotte Rees, Andy Wearn, Paul Bradley and Toshio Sato of 3 papers stemming from an international multi-centered study on students' attitudes and opinions on Peer-Physical Examination.

**Number of participants:**
We will break into small groups for discussion so up to 20 would work well.

**Abstract:**
There are now less patients on the wards who are willing to have medical students examining them because inpatients are generally sicker (1) and they also know that they have the right to refuse. Therefore, teachers can no longer assume that medical students will be able to easily learn physical examination skills on inpatients.

A very cost effective solution to this problem is to have students learn on each other. Peer Physical Examination (PPE) is used for both clinical skills (physical examination) and surface anatomy.

There are definite advantages to teaching with PPE including students being able to learn in a safe environment where they cannot harm patients (2) and developing empathy for the patient experience (3).

However, there are also many disadvantages to PPE because it involves physical touching in a state of partial undress amongst peers in a non-professional situation. The potential for advantage, abuse and embarrassment is significant.

In 2006, medical students in six different medical schools were surveyed about their opinions on PPE before they started teaching involving PPE. Four of the six schools were also surveyed after their first year of experience with PPE (4-6). These articles plus other significant works (7-9) in the research literature have given us insight into what students from a broad range of medical schools think about PPE and what their concerns and recommendations are.

But PPE teaching has also been influenced by the law, university regulations, local customs, the cultural and religious practices of our students and our own teaching experiences which have led to the development of policies and guidelines to ensure safe practice of this teaching method whilst ensuring the students are educationally gaining from their experiences.

This workshop will run through several case scenarios, looking at how teaching and guidelines have developed.

**References:**
1. Lowry, S. (1993). Trends in health care and their effects on medical education. British Medical Journal 306: 255-258.

2. Wearn, A. & Bhoopatkar, H. (2006). Evaluation of consent for peer physical examination: students reflect on their clinical skills learning experience. Medical Education 40: 957-964.

3. Braunack-Mayer, A.J. (2001). Should medical students act as surrogate patients for each other? Medical Education 35: 681-686.

4. Rees CE, Wearn AM, Vnuk AK and Sato TJ (2008) Medical students' attitudes towards peer physical examination: findings from an international cross-sectional and longitudinal study Advances in Health Sciences Education, http://dx.doi.org/10.1007/s10459-007-9094-y

5. Wearn AM, Rees CE, Bradley P, Vnuk AK (2008) Understanding Student concerns about peer physical examination using an activity theory framework Medical Education 42: 1218-1226.

6. Rees CE, Wearn AM, Vnuk AK, and Bradley P "Don't want to show fellow students my naughty bits: Medical students' anxieties about peer examination of intimate body regions at six schools across UK, Australasia and Far-East Asia" Accepted for publication in Medical Teacher Oct 2008

7. O'Neill, P.A., Larcombe, C., Duffy, K. & Dorman, T.L. (1998). Medical students' willingness and reactions to learning basic skills through

examining fellow students. Medical Teacher 20(5): 433-437.

8. Chang, E.H. & Power, D.V. (2000). Are medical students comfortable with practicing physical examinations on each other? Academic Medicine 75(4): 384-389.

9. Das, M., Townsend, A. & Hasan, M.Y. (1998). The views of senior students and young doctors of their training in a skills laboratory. Medical Education 32(2): 143-149.

**O 01**

**Human patient simulation manikin and information communication technology use in Australian nurse education**

**Ms Carol Arthur, Dr Tracy Levett-Jones and Dr Ashley Kable**

**Background:**
Since the transition of nursing education into the tertiary sector there has been a tension between the requirement for a strong academic foundation for professional practice and the need for students to develop confidence and competence in the clinical setting. Contemporary healthcare changes have resulted in clinical venues experiencing staffing shortages and increasing patient acuity. This means that the clinical learning environment is challenging but varied and unpredictable in its quality (Levett-Jones and Bourgeois, 2007).

In this context, the importance of clinical laboratories providing a safe and predictable learning environment becomes increasingly significant. However, competent professional nursing requires more than psychomotor skills, and recent research has shown that poor clinical reasoning by graduate nurses is a contributing factor to adverse patient incidents (NSW Health, 2006).

Recently, simulation incorporating reality based scenarios that allow students to practice clinical reasoning have been augmented by the use of high fidelity computerised human patient simulation (HPS) manikins (Jeffries, 2007). Clinical reasoning and patient outcomes have also been linked to the ability to use information communication technology (ICT) and access best practice information (Goldsworthy, Lawrence and Goodman, 2006) and for this reason simulation laboratories are also beginning to incorporate these technologies.

**Method:**
An Australia-wide survey of schools of nursing is investigating the current use of HPS manikins and ICT in clinical laboratories, and the underpinning principles and practices. Descriptive statistical data, as well as exemplars of best practice are being collected and analysed. This survey will be followed by a Delphi study to determine quality indicators for the use of HPS and ICT in nursing education.

**Results:**
This paper will present survey results that profile the range of HPS and ICT technologies, pedagogical practices and curriculum alignment evident in their use. This information will be of

benefit to those with an interest in the application and efficacy of simulation approaches.

**References:**

Goldsworthy, S., Lawrence, N. and Goodman, W. (2006). The use of personal digital assistants as the point of care in an undergraduate nursing program. CIN: Computers, Informatics, Nursing, 24 (3), 138-143.

Jeffries, P. (2007) Simulation in nursing education: From conceptualisation to evaluation. New York: National League for Nursing.

Levett-Jones, T. and Bourgeois, S. (2007). The clinical placement: An essential guide for nursing students. Sydney, Elsevier.

NSW Health. (2006). Patient Safety and Clinical Quality Program: Third report on incident management in the NSW Public Health System 2005-2006. Sydney, NSW Department of Health.

**O 02**

**"I am a medical student, please let me through"**

**Peter Barton, Alna Robb**

**Introduction:**

Acute care skills, particularly pre-hospital care, are not taught well to undergraduates across the UK1 and national standards of acute care have been shown to be inadequate 2. Pre-hospital and immediate care exists in many forms, from simple, individual interventions, to complex, team-based multi-task and multi-agency management of major disasters or incidents. Medical students can be called on to render such care before graduation.

**Purpose:**

Glasgow University has previously published its proposed competencies for graduating doctors in resuscitation[3]. This has been incorporated into the evolution of a larger acute care curriculum, spanning the 5 year undergraduate course, around three fundamental clinical competencies:

1. Resuscitation. We begin with basic CPR (year 1), concluding with Immediate Life Support Certification[4] (year 5).

2. Management of the Acutely Ill Patient (MAIP). We begin with acute care days (Year 4), concluding with high fidelity simulator experience during final teaching block of Preparation for Practice (Year 5).

3. Pre Hospital Care (PHC). We begin with basic first aid (primary survey and recovery position year 1), currently concluding with "at the scene" management (year 4) delivered by British Association for Immediate Care[5].

Within each strand, students are exposed to an increasing complexity of tasks and skills, moving from single person through to inter- and intra- professional -interactions and inter-agency cooperation.

The presentation will outline the strategy for designing, resourcing and delivering each thread of this integrated curriculum.

**Discussion:**

Drawing on our experiences of the program, issues of discussion will address:

Integrating the holistic and spirally developed curriculum

Mobilising and engaging teaching consultants, from student peers to ultra specialists.

Developing relevant supporting teaching materials,

including innovative multi-agency formats such as table top exercises involving police, ambulance, fire and rescue services.

Implementing an effective assessment process, both formative and summative, of clinical competencies

**References:**

1. Smith GB, Poplett N. Knowledge of aspects of acute care in trainee doctors. Postgrad Med J 2002;78:335-8.

2. National Confidential Enquiry into Patient Outcome and Death (NCEPOD). 15-5-2005. London, HM Stationary Office.

3. Barton PJM, McGowan J. Towards an undergraduate resuscitation curriculum: the competencies required of graduating doctors. The Clinical Teacher 2008. 5: 36-39.

4. Resuscitation Council (UK), website, http://www.resus.org.uk/pages/ilsregs.pdf , accessed 01/12/2008

5. The British Association for Immediate Care, website http://www.basics.org.uk/intropage.htm, accessed 01/12/2008

**O 03**

**The Glasgow University Triadic (GUT) OSCE**

**Determining the value of peer-based formative assessment for learning experience and outcomes**

**Peter Barton, Philip Belcher, Phil Cotton**

**Background:**

Responding to student anxieties over their preparedness for summative clinical assessment, we introduced a triadic formative OSCE in Year 1 MBChB. One year later we reviewed these students' Year 2 summative OSCE performance against the previous Year 2 cohort.

**Intervention objectives:**

1. To improve the preparedness of students to demonstrate summatively their clinical competence within an OSCE format.
2. To emphasise to students the importance of para-clinical skills, e.g. handwashing, which are embedded in the assessment process.

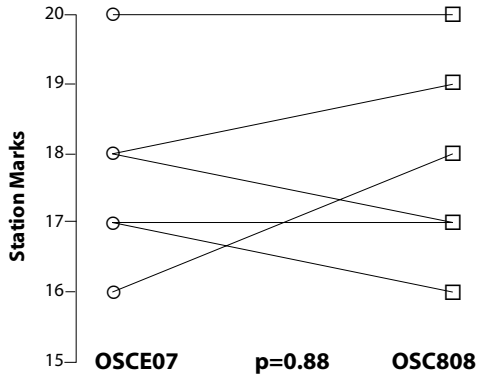
**Methodology:**

We devised a formative seven station OSCE for May 2007. Before the OSCE, the clinical skills website published assessment exemplars to improve students' understanding of assessment. Students received an OSCE briefing paper and an examiner briefing (analogous to Faculty's internal examiner briefing). Each student rotated through three roles during three circuits: volunteer patient, examiner and candidate.

Evaluation was by on-line questionnaire, a staff-student debriefing, and Faculty's contemporaneous anecdotal observations.

**Results:**

More students (69%) evaluated this session than any other teaching in Year 1. The analyses of the students' questionnaire (including free text comments), the staff-student debriefing, and Faculty's immediate comments confirmed an extremely valuable experience. Free text comments particularly highlighted students' comprehension of Faculty's OSCE expectations and insight into how patients feel being examined.




Statistical analysis of 6 stations common to 2007 and 2008 diets did not show the intervention to exert any significant learning effect on the Year 2 OSCE, with students in the intervention cohort scoring higher on two, worse on two and the same on two of the stations compared with the non-intervention cohort.

**Conclusion:**
Despite the lack of improvement in learning outcomes the positive experiential data justifies continuing the intervention, primarily because it meets student concerns for demonstrable OSCE transparency and enhances assessment accountability.

**O 04**

## Qualitative research in senior medical student learning; exploring professional identity development in the context of patient partnerships

**J.Barr**

**Background:**
Senior medical students in Tasmania, Australia use a structured learning program of real and managed patient encounters (Patient Partner Program, P3).

The impact of patients engaged as active partners for learning is the context in which this research has taken place at the Launceston Clinical School.

Socialisation of the undergraduate towards the junior doctor role is being investigated. Knowledge and understanding of how professional identity is influenced and developed and students' values about being future doctors has been generated.

These attributes of clinical competence could be enhanced throughout the undergraduate years if better understood by medical educators.

**Summary of work:**
Focus groups and interviews capture the P3 experience of 65 year 5/6 students over 2 years. The findings of this exploratory and interpretive study provide insight into students' views on learning from patients, what they understand about patient centredness and their journey and development towards becoming a doctor.

**Summary of results:**
Students' final years are an important stage in the development of professional identity. Preliminary findings indicate that a mismatch between students' and medical educators' values and understanding of patient relationship, authentic learning, outcomes versus process and motivations for 'doctoring' are important lines of inquiry for in-depth analysis.

**Conclusions:**
Understanding students' experiences and attitudes may lead to reconciliation of values and may impact on junior doctors' practice and life long learning, patient care and educators' teaching philosophies and curricula.

**O 05**

**Research investigating patients' experiences; as partners in teaching clinical skills at the Launceston Clinical School**

**J. Barr and K. Rooney**

**Introduction:**
The ever increasing voice of the patient is driving a shift towards patient centred care and patient partnership in health care delivery. To have patients involved in regular teaching and learning, proper engagement and management is vital to ensure a sustainable program.
Real patients are often considered 'too hard' to handle for reasons of logistics, consent, cost, perceived vulnerability and perceptions of not being interesting or 'hot' enough for students searching or clocking up 'diseases' in their clinical repertoire.
However, plenty of evidence indicates that medical educators and curricula need to move away from the exclusive traditional hospital model to focus on community based care and chronic illness management in teaching and assessing students. Real partnerships with community patients can ensure students experience managed and focussed clinical encounters in their undergraduate years.

**Background:**
The existence of the Launceston Clinical School's Patient Partner Program (P3), since 2005, allows for the unique opportunity to investigate the role in education of real volunteer patients from the community, their motivation for participating, any possible benefits and their perceived impact on student learning.

The privilege of hearing patient's views about partnership in learning offers an exciting contribution for greater consideration of such curricula and ethos; that is, a true patient centred care focus ensuring the development of doctors who are competent in engaging patients in health care delivery.

**Methods:**
Patient Partners took part in a survey (no= 31) and focus groups (no= 16) and both quantitative and qualitative data obtained.

**Outcomes:**
This research activity proved to be a rich experience for our P3 team, providing clear insights into the value of patient engagement for students' learning. Key features of these findings will be presented, along with guidelines for incorporating patients' feedback into the 360 degree design of formative assessment in the P3 program.

**O 06**

**Educational gaming in the health sciences: a quantitative systematic review**

**Author:**
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**Co-authors:**
**Professor Heather Skirton, University of Plymouth, UK.**
**Dr Simon Cooper, Associate Professor, Monash University, Australia.**
**Mr Peter Allum, Lecturer, University of Plymouth, UK.**
**Ms Pam Nelmes, Lecturer, University of Plymouth, UK.**

**Background:**
A range of innovative teaching strategies create a dynamic environment which is likely to enhance learning and appeal to a range of learning styles. Contemporary developments in experiential learning methods include clinical skills teaching technology, simulation techniques and innovative games for teaching and learning. In the clinical skills arena a number of games have been proposed, for example, 'GI rummy', 'name that drug', 'psych baseball', 'the pain game', 'the triage game' and electrocardiogram interpretation games.

**Aims:**
The aim of the review was to investigate the evidence for the use of games in the health sciences to support classroom learning. The specific questions related to the efficacy of games as a teaching tool, student enjoyment and knowledge retention.

**Data sources:**
Using appropriate search terms a search for studies published between 1980 and June 2008 was undertaken. Databases searched were: British Nursing Index, British Education Index, CINAHLPlus, Medline, PubMed, ERIC, PsychInfo, the Cochrane Library and Australian Education Index.

**Review methods:**
All relevant theses and publications identified through the search were assessed for relevance. Those that reported empirical studies or reviews that involved comparison of gaming with didactic methods were included (16 papers).

**Results**
The limited research suggests that both gaming and traditional didactic methods are successful

in increasing student knowledge, but that neither method is significantly more helpful to students. However, the use of games may enhance long-term retention of information and does appear to enhance student enjoyment.

**Conclusion:**
Games do appear to be a viable and valuable teaching strategy especially when combined with other techniques. However care should be exercised in the use of specific games that have not been assessed objectively. Further research is required to fully inform educators.

**Presentation format:**
The above results will be presented with a brief demonstration of an ECG interpretation game.

**References:**
Blakley G. Skirton H. Cooper S. Allum P. Nelmes P. Educational gaming in the health sciences: A quantitative systematic review. Journal of Advanced Nursing. In Press.

**O 07**

## A region wide project to scope the current and future use of clinical skills and simulation

**Brand S, Aldridge M, Millare L**

**Outline:**
In March 2008 Birmingham City University was awarded funding by the West Midlands Strategic Health Authority to **scope and define the use of clinical skills and simulation facilities and their role in delivering the future workforce in the NHS west midlands (UK)**. This project was supported by a unique partnership between Birmingham City University, and the Medical Schools of the University of Birmingham and Warwick University.

**Methods:**
The partnership enabled access to undergraduate and post-registration curricula for diagnostic radiography, medicine (including anaesthetic practitioners and physicians assistants), midwifery, nursing, operating department practice, paramedic care, physiotherapy, radiotherapy and other allied healthcare professions across the whole of a strategic health authority region. Through a number of research methods the partners were able to effectively address the brief whilst adopting an open mind to the outcomes.

**Results:**
The partners scoped the existing provision of skills and simulation education in the West Midlands, mapped skills across the variety of health care curricula, reviewed resourcing models and drew together an international Expert Panel, which included our partners at the University of Pittsburgh (USA), to vision the future of clinical skills and simulation education.

**Conclusion:**
The presentation will explore the outcomes of the project and key lessons that have been learnt. It will offer invaluable insight into how clinical skills and simulation based education is perceived and delivered at a strategic level. It will also seek to reveal key recommendations from the research on how healthcare funding bodies might approach a framework for the provision of sustainable skills education for its workforce. This presentation will also offer guidance for others seeking to undertake such research and discuss how the findings can be implemented within the UK and elsewhere.

**O 08**

**Development of professional identity skills**

**Louise Brown & Elizabeth Hayward**

This presentation will relate preliminary findings of a Speech Pathology Honours project regarding students' development of professional identity with a review of the development of clinical skills in the same student group.

The honours project is a qualitative study investigating the development of students' professional identity and how particular experiences and teaching methods are perceived by the students to assist this development. The participants in the study are speech pathology students at James Cook University.

The development of clinical skills will be evaluated using The Competency Assessment in Speech Pathology (COMPASS™) which is a validated measurement tool used throughout Australia for determining levels of competency of pre-entry level speech pathology students. The COMPASS™ enables assessment of clinical competency in four generic competencies (reasoning; communication; life long learning; professionalism) and seven profession specific domains (assessment; analysis and interpretation; planning intervention; intervention; service planning, maintenance and delivery; professional, group and community education; professional development). It therefore provides an effective source of information about the rates and times of acquisition of various clinical skills. This development will be related to the students' perceptions of their development of professional identity.

It is intended that the results of this investigation will assist educational institutions in tailoring programs that will facilitate the acquisition of a professional identity and professional skills for students, in particular those studying speech pathology.

**O 09**

**Clinical skills – how many and how well can you perform them?**

**R. Brown & P. Crooks**

The development of clinical skills are an integral part of health care education, so is the assessment of the individual's competence in performing those skills. Exposure to skills practice has been accepted within nursing programmes as an essential and necessary need (Commonwealth of Australia 2002). When asked, many clinicians are unable to articulate the skills that a beginning practitioner should possess – so what should be taught, when and how?

In November 2007 this Australian Learning and Teaching Council funded project commenced. There were two key outcomes; to identify the range of skills that could be reasonably expected of a newly graduating nurse in Australia and to develop a competency assessment tool (CAT). This study was supported by the Council of Deans of Nursing and Midwifery in Australia and New Zealand and subsequently the Australian Nursing and Midwifery Council and due for completion by January 2010.

This paper will focus specifically on two aspects of the early results from the skills - firstly the literature. The findings illustrated the diversity of expectations of new grads; the dissonance between what new grads believed they could perform and the range and complexity of skills that 'managers' and 'other senior clinicians' expected. This is likely to be the source of the view that 'new grads don't hit the ground running'.

Secondly all universities delivering nursing programmes in Australia were invited to submit documentation for analysis (n=39). Their willingness to support the project was illustrated with a 95% response rate. Preliminary analysis found that there were upto 300 skills being taught to nurses in undergraduate programmes. These ranged from psychomotor skills to cognitive and communication skills.
Assessment strategies ranged from OSCE's to simulation and clinical exposure however there was no obvious prioritisation of those skills in the majority of universities.

Commonwealth of Australia. (2002). National Review of Nurse Education. Canberra: Commonwealth.

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**O 10**

## Direct observation of procedural skills (DOPS) for use with anaesthetic trainees: a feasibility study

**Claire Byrne[1], Mary Lawson[1], Brian Jolly[2], Su-li Lim[3], Adam Rehak[4], Leonie Watterson[4], Daryl Williams[3] and Kelly Buttigieg[2]**

1 The Australian and New Zealand College of Anaesthetists (ANZCA)
2 Centre for Medical and Health Science Education, Monash University, Australia
3 Royal Melbourne Hospital, Australia
4 Royal North Shore Hospital, Australia

**Abstract:**
Traditionally, formal assessment in medical education has consisted of predominantly written and oral examinations, however, over the past 50 years there has been significant interest in more clinical/workplace-based performance assessments. Trainees of the Australian and New Zealand College of Anaesthetists (ANZCA) currently receive in-training assessments (ITAs) during their education; however, these are not necessarily based on observed practice. The aim of this study was to adapt the Directly Observed Procedural Skills (DOPS) procedure, a method of workplace-based assessment developed to assess practical surgical skills, to the anaesthetic domain; and then evaluate its efficacy and feasibility for use with ANZCA Trainees.

A combined set of procedure-specific DOPS Observation Forms, for each of the seven anaesthetic procedures to be investigated in this study, was designed by the research team and then reviewed by 14 qualified Anaesthetists and 14 ANZCA Trainees (across two hospital sites within Australia). Using a semi-structured interview format these participants provided comments on: feasibility, appropriateness, acceptability, impact on learning, and aesthetics. Suggested changes to the forms were reviewed and incorporated where consensus existed between a large proportion of participants.

A trial of a combined set of seven anaesthesia specific DOPS Observation Forms was then undertaken at the two hospital sites, during three consecutive ANZCA Trainee rotation periods (of three months each). There were 34 qualified anaesthetists across the two sites who participated in the study by acting as DOPS Observers; all trained in the use of the DOPS Observation Form by the research team. A total of 34 ANZCA Trainees across both sites participated in the study by requesting procedures to be observed via DOPS during one or more of the

rotation periods. From this a total of 185 DOPS Observations were conducted on participating ANZCA Trainees. All participants were asked to complete a questionnaire to evaluate the DOPS trial at the completion of the study.

The results of introducing DOPS for anaesthetic trainees at these sites will be discussed in terms of reliability, validity and feasibility.

**O 11**

**The effect of a learning package to encourage safe prescribing**

**Chinnappa, P.[1], Marshall, S.[1,2], Flanagan, B.[1,2], Harrison, J.[2]**
**[1] Southern Health Simulation and Skills Centre and [2] Monash University**

**Presented by:**
**Helen Kolawole**

**Background:**
The writing of illegible, inaccurate or ambiguous prescriptions on hospital charts is a frequent cause of medical error and patient harm [1]. Educational interventions to address this until now have been limited, as prescription charts are locally variable. Recently a standard 'National Inpatient Medication Chart' (NIMC) has been introduced to incorporate aspects of good design and be acceptable to the users [2]. The aim of this study was to determine if the guidelines accompanying the new chart were adhered to after an education session about its use.

**Method:**
Ethics committee approval was obtained and 168 final year medical students were invited to participate. Due to resource limitations only 29 of the students were able to take a pre-intervention test, requiring them to complete a prescription for a fictitious patient. Two clinical cases were developed and the students received one of these before the education and the other 1-6 weeks following the session using a randomly assigned cross-over technique.
From a scoring system with a maximum of 60 marks, two assessors independently marked the prescription charts for correct completion.
The education intervention directly relating to chart completion was a 1-hour long workshop introducing the NIMC. Further education included drug administration workshops, interactive lectures and immersive simulation scenarios [3].

**Results:**
The scores related to features of safe prescribing on the NIMC were higher following an education session when compared to the control group (36.5 vs 29.9 respectively, $p<0.002$).

**Conclusion:**
The teaching of safe prescription and of common mistakes when completing a standardised medication chart leads to fewer mistakes when completing prescriptions. This has the potential to reduce the morbidity and mortality of prescription errors in a hospital setting.

**References:**
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**O 12**

## The efficacy of a comprehensive education session on medication safety for final year medical students

**Chinnappa, P.1, Marshall, S.1,2, Flanagan, B.1,2, Harrison, J.21 Southern Health Simulation and Skills Centre and 2 Monash University**

**Presented by:**
**Helen Kolawole**

**Background:**
Medication errors are one of the prime causes ofavoidable injury in hospitals, with up to 1.5% of all hospital admissions experiencing harm as a result of amedication error [1]. One aspect of safety is drug dose calculation, and prior studies have noted that medical students and junior doctors struggle to calculate doses expressed in a ratio or percentage concentration [2]. The aim of this study was to determine if a learning package on medication safety improves the ability of final year medical students to calculate ratio and percentage doses as well as the doses of medications used in emergency situations.

**Method:**
After HREC approval, 74 of the 168 medical students taking a subject on patient safety were randomly invited to undertake a pre- and post-knowledge tests following a contact day on medication safety. The education session is described elsewhere in more detail [3]. The section directly related to calculations and problem solving for this study was a 1-hour interactive lecture.Two knowledge tests were created, paired for difficulty and a crossover technique applied. Half of the students (n=37) were randomly selected to have paper ‘A’ before the education, and paper ‘B’ after the education, the other half received the papers in reverse order. Evaluations of the education were also completed at the end of the teaching day.

**Results:**
Analysis of the paired data showed that the participants improved their performance on the knowledge test after the education. Analysis using an ANOVA technique suggests that the two knowledge tests were similar in difficulty. The vast majority of respondents agreed or strongly agreed the education was useful (99%) and conferred new knowledge (99%). Improvement of the test scores after the education day (paired t-test$p<0.001$)

**Conclusion:**
Both objective and subjective evaluation of the education suggest that teaching medication safety to medical students is valuable in their final year

and that this material is not covered elsewhere in the curriculum.

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**O 13**

## The clinical skills confidence index (CSCI-30): a longitudinal tool for auditing curricular changes affecting clinical skills training

**Dick Churchill**

Medical students are expected to acquire a range of clinical skills by the time that they graduate. These skills are taught at various stages in the curriculum and often across a range of teaching sites. Course organisers need to be able to monitor the impact of curricular developments on skills acquisition, and to evaluate the effectiveness of teaching on a longitudinal and cross-sectional basis. In this presentation a simple tool will be presented that has been developed to audit developments within the University of Nottingham Medical School curriculum in the UK.

All medical students at Nottingham Medical School are asked to complete an on-line survey of their confidence in performing a sample of 30 clinical skills at the end of each academic year. The Clinical Skills Confidence Index (CSCI-30) is an aggregate measure (analogous to the FTSE-100 in financial terms) derived from the results the survey. Both the overall index and ratings from individual skills provide information on the effectiveness of the overall clinical skills teaching programme, and allow comparisons between student groups, teaching sites, curricular stage, and sequential years

The results to date show that students' confidence in specific skills is, as expected, associated with the stage of the curriculum at which they are taught, such that the CSCI-30 increases with time. However deficiencies in the acquisition and maintenance of specific skills have been identified and plans have been instituted to address these. The first major curricular change to take place since the survey was instituted was the confluence of a graduate entry stream with a traditional course. The CSCI-30 was used to audit the impact of this development. A summary of the results from the first four years of the survey will be presented and the potential value and limitations of the CSCI-30 will be discussed.

**O 14**

**Evaluating the impact of introducing MACCS (mandatory assessment of core clinical skills) into an undergraduate medical curriculum**

**Dick Churchill**

Assessment and certification of competence in individual clinical skills is an increasingly important priority for medical educators who need to ensure that graduates are appropriately equipped for practice.(1) There are numerous models are available.(2) Mandatory Assessment of Core Clinical Skills (MACCS) is a form of competency assessment which is being introduced across the entire Nottingham medical curriculum. In addition to being able to assure competence for the purpose of certification, it was anticipated that the process will enhance student confidence in specific skills and possibly also their overall performance in other types of clinical assessment.

MACCS was introduced into Clinical Phase 1 (Year 3 of our 5 year course) in 2008, with the establishment of assessment in 11 core skills. In order to evaluate the impact of this development students who had been through the process were compared with an historical cohort from the previous year with respect to results of end of attachment clinical examinations and also the results of a survey of self-reported confidence in clinical skills. In addition, themes arising from collated qualitative feedback from staff and students were identified.

There were no significant differences in the results of end of attachment clinical examinations between the two cohorts, possibly because of the design these examinations. However the aggregate confidence scores were significantly higher in the 2008 cohort, due specifically to an increase in self-reported confidence in some, but not all, of the skills that had been assessed. Feedback from students and staff was generally positive, but concerns were raised about the opportunity cost of MACCS.

These findings will be discussed in the context of a critical evaluation of the concept of competency assessment in undergraduate medical education.

**References:**

(1) McKinley R K, Strand S, Ward L et.al. 2008 Checklists for assessment and certification of clinical procedural skills omit essential competencies: a systematic review. Medical Education: 42: 338–349.

(2) Leigh I W, Leon Smith I, Mebeau M J et.al. 2007 Competency Assessment Models. Professional Psychology: Research and Practice 38(5): 463–473.

**O 15**

**Simulated clinical skills teaching in children and young people's health and illness: the utilisation of simulation and digital media, to create an integrated e-learning experience for children's nursing and occupational therapy students**

**David Clarke, Lecturer and Programme Manager, Jane Davies, Professional Head CYP Nursing, Pam Stead, Lecturer**

**Overall aim of the paper:**
The aim of the this paper is to explore the experience of students from two health care disciplines undertaking a community simulated experience, followed by the use of digital media vignettes used for group discussion. The effectiveness of such an approach will also be considered.

**Abstract:**
In terms of preparing health care professionals for practice, there has been resurgence in skills focused teaching and learning activity. The emergence of simulated learning has provided students with an opportunity to enhance their skills in a safe and inter professional environment with some degree of realism.

This project sought to enhance inter professional student learning between the professions of children's nursing and occupational therapy, initially through a simulated community scenario, using a problem based learning approach. They then produced a variety of presentations, enabling them to share knowledge and professional skills with their inter-professional peer group. This was followed by the development and utilisation of realistic and professional digital video vignettes which specifically simulate a variety of situations related to children and young people's health and illness. The availability of such material via the University's virtual learning environment gave students unlimited access to review, analyse and reflect upon a variety of simulated scenarios before undertaking an e-learning activity and problem based learning scenarios. For example: a small group of students individually viewed a digital scenario (simulating real life experiences) and then undertook dialogue on emerging issues through a series of electronic group discussions to explore the implications and relevance to their clinical practice.

Evaluation of the project was undertaken using a likert style questionnaire, with opportunity to add qualitative comments and a focus group attended by both occupational therapy and child branch nursing students, this was facilitated by someone not involved in the project. The overall evaluation was overwhelmingly positive with students stating they had learnt about each other's professional roles, working as a team, communication skills and how to manage complex discharge from hospital. Some of the nursing students found the problem based learning marginally threatening. Many students commented that they had learnt a great deal from the experience and would recommend it for other healthcare students.

The future, now the pilot is complete and evaluated, is to expand the project and find ways to integrate an inter-professional simulation experience for all the occupational therapy students in year two of their studies and to further integrate the activity into the child branch curriculum. The challenges we face are time and resources within the current constraints of the programme. We also need to implement the findings of the evaluation and act upon student recommendations.

This presentation will explore the experience of planning, negotiating and implementing an inter-professional simulated clinical experience in children's nursing. Evaluation of the project was undertaken through student evaluation questionnaires and a focus group, the results of which will be presented, along with our long-term aims for the project. Examples of video material produced by the students during the clinical simulation will be used to demonstrate the inter-disciplinary leaning experience.

**Learning outcome 1:** Explore the effectiveness of simulation and digital media analysis as a means for preparation to work in a variety of clinical practice settings
**Learning outcome 2:** Develop an awareness in relation to the enrichment of the student experience in the collaborative development of essential clinical skills teaching and learning activities, through the use of simulation, digital media, e-learning and problem based learning
**Learning outcome 3:** Create some understanding of an innovation which creates inter-professional opportunities for research and development in learning and teaching within children's services

**Reading reference 1:** Welsh Assembly Government (2005) National Service Framework for Children, Young People and Maternity Service in Wales. Cardiff: WAG

**Reading reference 2:** COT (2007). Building the Evidence for Occupational Therapy: Priorities for Research. London: College of Occupational Therapists.

**Reading reference 3:** Royal College of Nursing

(2004) Services for Children and Young People: preparing nurses for future roles: RCN Guidance. London: RCN Publications

**O 16**

**Examiners OSCE decision processes**

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**Abstract:**
**Background:** The reliability and validity of OSCEs has been a concern of many researchers (Martin and Jolly 2002; Shanley 2001). OSCEs tend to be marked in a tick box checklist rating format for each component of the examination; however, the binary nature of checklists may overlook the more holistic components of clinical competence with the suggestion that global ratings of performance may be an advantage (Regehr et al, 1998; Hodges and McIlroy 2003). In addition little is known about examiners' decision processes in this setting.

Our **objective** therefore, was to quantify the relationship between examiners' global rating and checklist scores and to identify examiners key decision processes in masters level OSCEs for an advanced healthcare practice multi-professional programme.

**Methods:**
A quantitative and qualitative focus group design; including a retrospective review of 561 OSCE examination results and four focus groups with experienced clinical examiners.

**Results:**
Overall we identified a strong positive correlation (rho 0.75) between global ratings and checklist scores. However borderline checklist score categories tended to be higher than the global rating category and more experienced examiners tended to allocate lower global ratings ($p=\leq 0.001$). Focus groups confirmed these findings, examiners indicating that the marking templates tended to produce a 'higher score' than they would have allocated from 'gut reaction' and that that experience gave them confidence in allocating a range of scores including 'fails'. In support

of Recognition Primed Decision making theory examiners claimed that they make decisions without contemplation, that they use their experience to pattern match against 'best practice', and that they focus on situational assessment rather than 'option' or 'optimum' assessment.

**Conclusion:**
Global rating scales are an appropriate assessment scale and do improve the validity and reliability of OSCEs in this setting. Further work is required to identify examiners key decision strategies.

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Regehr G., Macrae H., Reznick R. and Szalay D. (1998) Comparing the psychometric properties of checklists and global rating scales for assessing performance on an OSCE-format examination. Academic Medicine 73 (9), 993-997.

Shanley E. (2001) Misplaced confidence in a profession's ability to safeguard the public? Nurse Education Today 21 (2), 136-142.

**O 17**

## A mixed methods study of resuscitation skills learning in uniprofessional and interprofessional settings

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**Background:**
The drive towards interprofessional education has been posited on the belief that such education will foster less tribalism, inflexibility and prepare people better to work together in the pursuit of better patient care[1-4]. However there appears to be little evidence to support the efficacy of this approach.

Our **objective** therefore was to identify the effect of teaching resuscitation skills in an interprofessional setting on medical and nursing students' attitudes, leadership, team work and performance skills.

**Methods:**
A quasi-experimental approach using mixed methods. Consenting 2nd year medical and nursing students were taught Immediate Life Support resuscitation skills in uniprofessional and interprofessional settings, prior to focus group interviews and observational ratings of video recorded leadership, team work and skills performance. The readiness for interprofessional learning scale (RIPLS) was administered immediately before and after the intervention and again at 3 - 4 months later.

**Results:**
There was no difference in performance between interprofessional and uniprofessional teams. However medical students, had higher leadership ratings ($p = .01$) and tended to lead more dynamic ($p = .039$) and efficient teams ($p = .021$). Focus group results broadly supported the notion of IPE with perceived benefits for teamwork and communication and with improved understanding of roles and perspectives. However there were concerns regarding inappropriate role adoptions, hierarchy issues, professional identity

and the timing of IPE episodes. The RIPLS scale showed significant increases for professional identity and team working immediately after the intervention in the interprofessional group.

**Conclusion:**
The study illustrates that an intervention based on common shared learning outcomes, relevant to both groups and provided in a realistic educational context can work even though students may have differing levels of previous IPE and skills training experience. Further work is required to examine other domains of learning and the timing of interventions.

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**O 18**

## Clinical skill development and collaborative practices in unscheduled emergency care. The role and impact of the UK Emergency Care Practitioner (ECP)

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**Background:**
In order to ensure patients are treated at the 'right time and place' and to reduced hospital admissions, the Emergency Care Practitioner (ECP) role has emerged in the UK. Nurses and paramedics are taught advanced clinical skills and develop communication and collaborative networks to undertake the ECP role in a variety of out of hospital settings [1-3].

Our **objective** was to identify how these advanced practitioners impacted on practice.

**Methods:**
A 12 month mixed methods clinical case study in a large UK ambulance trust, using direct observational ratings of clinical skills including communication, teamwork and leadership with 24 multiprofessional emergency care practitioners (ECPs); interviews with 45 ECPs and stakeholders; and an audit of 611 patients.

**Results:**
ECPs used a range of advanced clinical skills and generally performed well in ratings of leadership, communication and team work. Importantly they transported 30% less patients to hospital than their paramedic colleagues. Observational records and interviews showed that ECPs' developed numerous links with other professions which were influenced by perceptions of their role,

their level of education and training and cultural perspectives

**Conclusions:**
ECPs do appear to be having an impact on patient care, but improvements can be made. Further research is required especially relating to patient safety issues and an economic analysis of the role.

**References:**
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**O 19**

## Managing the deteriorating patient in a simulated environment: nursing students' knowledge, skill, and situation awareness

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**Background:**
The early identification and management of patient deterioration has a major impact on patient outcomes. However the ability of nurses to detect deterioration has been shown to be lacking, the reasons for which are unknown.

**Aim:**
This study aimed to measure the relationship between knowledge, skill performance (SP) and situation awareness (SA) in a simulated environment.

**Methods:**
Final year student nurses attended a simulation laboratory for 1.5 hours and completed a knowledge questionnaire and two video recorded simulated scenarios (mannequin based) to assess SP. The scenarios simulated deteriorating patients with hypovolaemic and septic shock. SP was rated and SA was measured by randomly stopping each scenario and asking a series of questions relating to the situation.

**Results:**
Fifty-one students attended. The mean knowledge score was 74% (46 -100%) and the mean SP score across both scenarios was 60% (range 30 - 78%). Age and experience had no significant effect on SP, but skill performance improved significantly ($p < .01$) by the second scenario. However, for both scenarios SP declined significantly (p.012) as the patient's condition deteriorated.

The mean SA score across both scenarios was 59% (range 38% - 82%). Age and experience did not influence SA and SA did not improved over time. Participants tended to identify physiological indicators of deterioration (77%) but had low comprehension scores (44%).

There were no significant associations between mean MCQ, SP and SA scores, but a borderline association between SP and SA (p.079).

Student self ratings of pre-post knowledge levels indicated a significant improvement in understanding of patient deterioration ($p < .001$).

**Conclusion:**
Knowledge scores suggest, on average, a satisfactory academic preparation, but there were significant deficits in students' ability to manage patient deterioration. Simulation techniques appear to be a good way of assessing skill and SA and may improve performance when integrated into curricula.

**O 20**

## Does VR improve OR performance? A systematic review of skills transfer after surgical simulation training

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**Background:**
A Previous review by the Australian Safety and Efficacy Register for New Interventional Procedures-Surgery (ASERNIP_S) have focussed on examining the evidence for simulation having any effect on training in surgery. Many studies have demonstrated improved simulator performance after simulator training, and others have demonstrated improved surgical performance in anaesthetised animals after simulation based training. This review aimed to determine specifically what evidence was there to show that skills acquired by simulation based training transfer to the operative setting.

**Rationale:**
The fundamental assumption of simulation based training for surgeons is that skills acquired in simulated settings are directly transferable to the operating room. There is little or no Level 1 Evidence to support the contention that Surgical Skills learned in a Virtual Environment transfer to performance in the Operating Room.

**Methods:**
A systematic search strategy was used to retrieve relevant studies. Inclusion of papers was determined using a predetermined protocol routinely used in ASERNIP-S reviews (details are available at the website below), independent assessment by two reviewers, and a final consensus decision. Only studies that reported on the use of simulation based training for surgical skills training, and the transferability of these skills to the operative setting, were included. The review

is limited to the literature relating to laparoscopic cholecystectomy and colonoscopy/sigmoidoscopy. The comprehensive report by ASERNIPS,which includes all procedures, can be found at www.surgeons.org/asernips/.All randomised controlled trials (RCTs) and non-randomised comparative studies reporting on the use of simulation based training, and the transfer of these skills to the surgical setting were included for review. Studies were identified by searching MEDLINE, EMBASE, CINAHL, Current Contents, PubMed and the Cochrane Library, from the inception of the databases to December 2006. The York (UK) Centre for Reviews and Dissemination databases, Clinicaltrials.gov, National Research Register, MetaRegister, and the Australian Clinical Trials Registry were also searched in December 2006. Searches were conducted without language restriction. The search terms used were (surg* AND simulate*) AND (skill* OR train*). Pearling was then undertaken to locate any articles that may have been missed by the electronic database searches.

**Results:**
Ten randomised controlled trials and one non-randomised comparative study were included in this review. In most cases, simulation based training was in addition to normal training programs. Only one study compared simulation based training with patient based training. For laparoscopic cholecystectomy (four RCTs and one Comparative Study) and colonoscopy (five RCTs) / sigmoidoscopy, (one RCT) participants who received simulation based training prior to undergoing patient based assessment performed better than their counterparts who did not receive prior simulation training, but improvement was not demonstrated for all measured parameters.

**Conclusions:**
The studies included in this review were of variable quality and design, which limited the strength of the conclusions. Skills acquired by simulation based training appear to be transferable to the operative setting. High quality studies are required to confirm these findings, and will need to examine different simulation technologies, clinical procedures, training regimens and assessment techniques, if the place of simulation based training within surgical training programs is to be determined. Such studies will strengthen the evidence base and provide guidance as to the extent to which simulation should become a part of surgical training programs.

**Future:**
Under the auspices of ASERNIP-S, the Royal Australasian College of Surgeons and the University of Western Sydney a large scale national study – the Simulated Surgical Skills Programme - is being developed to address this issue.

**O 21**

## How can clinical skills education improve patient safety?

**Jocelyn Cornish**

Patient safety is a major focus of current Health Policy in the UK and also the world (National Patient Safety Agency, 2008; World Health Organisation, 2008). Key areas of interest include critical incidents in surgery, medication errors and infection control. Other work streams relate to the collection and analysis of data and its use in the improvement of patient safety and its measurement. Clinical indicators are used in this way as a measure of quality of care for patients and include pressure ulcer acquisition and data on slips, trips and falls as well as those relating to hospital acquired infections, surgical errors etc.

Moving and handling studies have previously been driven by an occupational health and safety perspective with a focus on staff and the prevention of back injuries in the main. However, studies have provided evidence of a risk to patient safety through poor practice in this aspect of nursing care (e.g. Cornish & Jones, 2007). They have identified factors affecting the performance of this clinical skill which relate to organisational and system failures (for example, a lack of risk assessment or inadequate safety checks on equipment) and resource difficulties (a lack of equipment use), themes of the patient safety agenda noted above. They have also suggested, through the description of critical incidents, that moving and handling could be an unidentified component of tissue viability problems and slips, trips and falls. As such, moving and handling appears to be an important focus for patient safety work yet is absent from Government documents, patient safety research and data collected to measure care quality.

This paper presents the issues for clinical skills education relating to moving and handling and draws upon empirical data to highlight this practice area for inclusion in the patient safety debate. Moving and Handling is compared with medication errors and infection control to understand the lack of attention and enhance its profile in patient safety work.

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**O 22**

## Pre-placement clinical skills teaching: an analysis of key components, benefits and students' perceptions of value of a five-day university-based intensive programme

**Madeline Cruice PhD**
**City University London**

Observation is fundamental to speech and language therapy (SLT) practice, used by clinicians to identify, interpret, analyse and diagnose communication disabilities, problem solve during assessment and therapy situations, and recognise communicative success. Students need support to develop this skill, as well as skills in note taking and reflection in order to make sense of their observations (McAllister et al, 1997). In SLT, most clinical skills learning occurs in placement, and university-based clinical skills sessions or simulation learning are relatively new phenomena. This paper reports on a pilot intensive programme of clinical skills sessions at City University London.

Twenty first-year postgraduate SLT students participated in the programme, facilitated by one full-time lecturer (qualified SLT). These students were 'novice learners', having completed only one term (in six) of their studies. The programme was timetabled as 5 sessions per day for 5 days, and comprised 13 videoed interactions of individuals with communication disabilities and 11 sessions of non-client non-observation tasks, such as discussion, linking theory to client, and developing resources. Data comprises students' workbooks, qualitative feedback, and pre and post skills self-evaluations. Students self-reported their skills across a detailed range of specific clinical and communication skills using a 5-point likert scale of ability. Further student perceptions and reflections on both programme content and their learning were probed, and students recorded this in their workbooks throughout the programme. Research ethics approval was granted by City University London.

This paper discusses the key elements that underpinned the programme's success as well as methods to create a safe learning environment, which is also sufficiently challenging. The value of facilitated learning, as opposed to self-directed or small group peer learning (both prevailing learning methods in SLT), is evidenced by student feedback. A significant outcome was a substantial positive shift in expectations of 'what could be learned sitting in a room at university watching a video with classmates'. The analysis of students' pre and post skills self-evaluations (based on non-parametric repeated measures t-tests as well as ordinal change data) is in progress. This pilot

project provides evidence that a clinical skills intensive programme can meet the learning needs of a large number of novice learners with limited resource, potentially enabling them to enter their first placement with a higher degree of skill and awareness, and thus more able to learn from their environment.

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**O 23**

## Interprofessional collaboration in skill development for undergraduate and postgraduate students in mental health nursing

**Janette Curtis**

**Background:**

There is ongoing concern amongst mental health professionals regarding the recruitment of newly graduated nurses to this specialist nursing area. Many reasons for the problem have been identified, including the perceived inadequate preparation by the tertiary sector, students' prejudices and anxieties about mental illness, a perceived lack of support while undertaking clinical placement and the quality of the clinical placement itself (Clinton & Hazelton, 2000). Added to this is the need for practicing mental health clinicians to undertake further specialist education and to learn and refine new skills. This presentation describes a collaborative response to these issues undertaken by the School of Nursing, Midwifery and Indigenous Health at the University of Wollongong.

**Research:**

The implementation of pre-clinical undergraduate workshops using case-based role-plays were undertaken. Mental health and drug and alcohol scenarios were developed in association with experienced multi disciplinary clinicians and carers to introduce core concepts in a supportive learning environment. Quantitative and qualitative evaluation data were collected between 2001-2005 immediately following the workshops and again after the students returned to the university following their clinical placement. One mental health cohort was interviewed 12 months after initial registration (Curtis 2007). Additional workshops have been developed for postgraduate students including the development of interactive CD ROMs.

**Findings:**

Results showed that both students' and clinicians' attitudes to the workshops were consistently positive and indicated that the workshops were beneficial in preparing students for their clinical placement. Importantly, since the implementation of the workshops and other collaborative initiatives, an increasing number of newly graduated nurses from the region are choosing to work in mental health. Evaluations of the postgraduate workshops will also be presented.

**Conclusions:**

The importance of interprofessional collaboration is evident in the development of low fidelility

clinical skills. The development of skills from undergraduate to postgraduate education which involves cross disciplinary teaching is an effective way to develop essential skills for beginning and experienced practitioners in mental health.

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**O 24**

**Effect of mentoring on public health nutrition competency development: implications for curriculum planners**

**Janeane Dart, Claire Palermo, Margaret Bearman, Ibolya Nyulasi**

**Introduction:**

The Bachelor of Nutrition and Dietetics (BND) at Monash University, established in 1999, is a four year undergraduate program; the first two years based on the development of foundation health science knowledge and the final two years specifically focused on the development of dietetic practice skills. The curriculum has a strong practical placement component with students being required to spend a minimum of 28 weeks on placement across clinical, community and food service environments. Accreditation processes, student feedback and educational developments in health sciences programs at Monash identified the need to review the curriculum.

**Methods:**

Individual interviews with staff (n=26) involved in teaching into the curriculum and focus groups with students from all year levels (year 1 n=5, year 2 n=4, year 3 n=19, year 4 n=22) and the 2006/2007 graduates (n=6) were conducted to identify the strengths of the current curriculum and areas for development. Qualitative data from interviews and focus groups were reviewed and key areas for change identified using a content analysis approach.

**Results:**

Data analysis indicated the need for improved integration of curriculum content together with governance issues such as the documentation of curriculum and blueprinting of assessment. The curriculum needs to provide earlier placement exposure and greater opportunities to prepare students for placement through simulated learning experiences. Students' communication skills development should also be strengthened.

**Outcomes:**

Four themes were identified to provide integration across the BND curriculum. These were: 'Food: from science to systems'; 'Determinants and influences of population health and nutrition'; 'Nutrition fundamentals of health and disease'; and 'Personal development and professional practice'. The new BND curriculum will provide enhanced and diverse practice experiences to strengthen professional identity and further improve communication skills.

**O 25**

**Teaching students how to communicate certainty and uncertainty in clinical practice: a physiotherapy example**

**Dr Clare Delany**

Current expectations of professionalism in clinical practice for all health care practitioners include an ability to exchange both certain and uncertain information transparently and honestly. This expectation is a component of the legal and ethical obligation to communicate information about the risks and benefits of clinical treatment and to obtain patients' informed consent to treatment.

This paper reports on qualitative research that examined the information conveyed to patients and more specifically, how physiotherapists obtained patients' informed consent to treatment. The research involved audiotaping individual treatment sessions and interviewing participating physiotherapists following each treatment (Delany 2007). Using grounded theory methodology as a framework of analysis, one of the central themes arising from the recorded treatment was how therapists communicated certainty and uncertainty about a proposed treatment.

Therapists characterised their role as providers of expertise, re-assurance and beneficial therapeutic outcomes. Within this role, they valued and emphasised the importance of demonstrating certainty in providing information about diagnoses, treatments and prognoses. Through a discourse of expertise, therapists conveyed authority, objectivity and expertise. Communicating uncertainty relating to therapeutic treatment or acknowledging uncertainty as a component of illness or disability was defined as a source of tension that would undermine their dominant therapeutic role and discourse (Kitto et al 2004).

These findings have implications for patients' roles generally within physiotherapy and other healthcare treatment encounters and specifically in their opportunity to share in clinical decision making and planning (Delany 2008). The findings also provide data about how educators might frame the teaching of clinical communication given the effects of the therapeutic discourse on patients' ability to provide their informed consent .

This paper will provide background data to inform a method of re-framing health professional goals of communication in light of current and emerging expectations of information sharing within the context of clinical communication.

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**O 26**

**The application of simulated empathy**

**Desiree A. Diaz**

**Purpose:** The purpose of this quality improvement project was to determine the benefit of high fidelity simulation education related to empathy.

**Research Question:**
Does the use of simulation yield greater understanding and empathy related to the ostomate compared to traditional methods of teaching?

**Procedures:**
Junior nursing students, N 132, enrolled in a fundamental of nursing course received a lecture on colon cancer and ostomy procedures related to the diagnosis. Students were required, as part of simulated lab activities, to wear an ostomy bag filled with unspecified contents for 48 hours. Students were to don the bags in lab using research as to correct placement of bags based on the type of surgery they had. Traditional reflection exercises were encouraged. Students removed their ostomy bags in clinical as a group with their clinical faculty. The remaining requirement was to write a 3-5 page paper reflecting on the experience of being a simulated ostomate for 48 hours.

**Results:**
This experience allows students to deliberately make a reference point in which they can later draw upon when educating or caring for an ostomate. This was initially noted in Benner's work (1984), From Novice to Expert. Students reported feelings of depression, social isolation, and paranoia and sleep disturbances while wearing the ostomy bags. The students noted that while the application of the bag did not fully simulate a true ostomate, they had a deeper understanding and empathized with patients. Ten percent of the students reflected on a change in how they educated their patients. Students were able to identify the need to discuss topics such as sex, life style and social changes. This is the impetus for further investigation as identified by the need to transfer simulation to clinical practice.

**Discussion/Application to Practice:**
This investigation for quality simulations has formulated questions for further study. It has been proven that simulation is an affective teaching strategy however; it has not been explored related to direct patient outcomes. Exposure to changing situations will transform the reference point for the new graduate (Benner, 2001). An empathetic reference point will be an advantage for patients as novice nurses will recognize the need to educate patients and alter their care.

**O 27**

## Simulation of hospital clinical practice: sometimes the best things in education are free

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**Background:**
Medical education today widely incorporates vertical integration of clinical experience and simulation in the early, traditionally more-theoretical years[1]. These aim to prepare undergraduate learners for their roles in medical practice[2]. Several difficulties with these techniques emerge: early hospital exposure may lead to hospital overload with multiple years of students attending simultaneously; student performance stress in an unfamiliar environment; and the cost of simulation equipment can be limiting with the trend towards higher-fidelity simulations.

**Purpose:**
We aimed to introduce a low fidelity simulation of Hospital Clinical Practice on the University campus. This simulation introduced key gastrointestinal case reports, as well as embedding desired outcomes of good medical practice (clinical handover, prioritising a working day, communicating with referring practitioners).

**Methods:**
A low-fidelity simulation based on computer-assisted learning and small group discussion led by an experienced clinical tutor was devised and utilised during gastrointestinal system teaching of first year medical students within the Doctor and Patient Theme (Clinical Skills) at our university. The simulation placed students in the role of a hospital registrar for a day, including ward round, clinic, endoscopy and teaching commitments. Feedback was collected from clinical tutors and students.

**Results:**
The simulation ran smoothly, with minimal further training of Clinical Tutors required in its delivery. No additional costs were incurred in development or deployment. Feedback received was overwhelmingly positive from both tutors and students.

**Conclusions:**
It is possible to simulate clinical experience at an undergraduate level without placing students in an unfamiliar hospital environment with limited capacity. Well-planned low-fidelity, low cost simulation has a high level of satisfaction at both the level of teaching provider (tutor) and receiver (student).

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**O 28**

**Clinical skills education and the orientation of new graduates – a program evaluation**

**Margaret Duff, Claire Mallette, Carolyn McPhee and Heather Pollex**

**Background:**
In our organization, the Ontario Government New Graduate Guarantee (NGG) program has been a catalyst to offering newly graduated nurses with a supported entry to practice, including several innovative educational initiatives. The feedback from focus groups with the 2007 NGG participants at our multi-site, tertiary care hospital included positive comments about the use of a simulation lab to teach psychomotor skills during initial orientation, and requests for more opportunities to learn in a simulation lab setting.

**Method**:
In 2008, our organization used NGG funding to provide a callback day six weeks after the date of hire. Nursing educators developed a high-fidelity scenario, and two medium-fidelity simulations to provide a safe setting in which to practice clinical skills, including critical thinking and communication skills. As part of the program evaluation of the five 2008 callback days, 30 nursing educators were requested to complete an online 11-item survey to systematically document their opinions about the educational outcomes of this initiative.

**Results:**
Seventy percent of nursing educators who participated in the facilitation the simulations responded to the online survey. The majority of educators were novices at using high-fidelity simulation as a teaching learning strategy. Most of those who responded to the survey noted evidence of new learning in the behaviours of new graduates both during and after the callback day. The educators planned to use simulation as a teaching-learning strategy in the future.

**Conclusion:**
Most Ontario undergraduate nursing programs have introduced simulations to their curriculums. New graduates now expect to be able to integrate psychomotor, cognitive and affective learning during simulation lab scenarios. Our educators' early experiences with high- and medium fidelity simulations have been successful. We plan to continue to use simulation during initial orientation and professional development activities for nurses.

**O 29**

**Nursing students' ability to detect and manage signs of deterioration in a simulated environment**

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**Background:**
The extent of missed indicators of deterioration in medical and surgical patients has been previously identified in large, multi-centre studies. Initial decisions about patients who are deteriorating are often made by newly qualified nurses and doctors, increasing risk of clinical error. Despite this context, there is limited understanding about the cues that inexperienced clinicians identify, or miss, at the bedside.

**Aim:**
This study aimed to investigate the ability of final year students to recognise clinical cues of deterioration.

**Methods:**
Final year student nurses attended a simulation laboratory for 1.5 hours and completed a knowledge questionnaire and two (mannequin based) scenarios simulating deteriorating patients with hypovolaemic and septic shock. Subtle cues indicating patient deterioration were present at the beginning of each scenario. At four minutes, in each scenario, the patient's condition rapidly deteriorated and obvious cues were present, indicating either hypovolaemia or septic shock. Scenarios were video recorded, allowing detailed investigation of cues recognised and acted on for each scenario.

**Results:**
Fifty-one students participated in the study; 60.8% had undertaken a placement in emergency department or critical care. Across both scenarios the proportion of participants who made each correct observation or undertook the correct action was highly variable. Recording heart rate was the highest correct observation for both scenarios (94.1% and 98%) with recording oxygen saturation also scoring 98% in the septic shock scenario. In the hypovolaemia scenario, Significantly fewer observations relating to blood pressure, respiratory rate, temperature and AVPU

were made in the second half of the scenario compared to the first (p 0.001), while performance in terms of requesting/increasing infusion rate improved (p<.001).
In the septic shock scenario, fewer observations relating to temperature and AVPU were made in the second half of the scenario compared to the first (p 0.05), while a greater proportion of participants requested an increase in the infusion rate during minutes 4-7 of the scenario than earlier (p<.05). No significant correlation was found between the knowledge questionnaire score and performance in the scenarios. Multiple regression analyses to determine whether performance could be predicted by four independent variables (age, critical/emergency care placement experience, previous experience with critically ill patients and knowledge questionnaire score) found no significant predictors.

**Conclusion:**
Knowledge scores suggest, on average, a satisfactory academic preparation, but there were significant deficits in students' ability to manage patient deterioration. Simulation techniques appear to be a good way of assessing skill and SA and may improve performance when integrated into curricula.

**O 30**

**Can a female catheterisation session with a patient educator offer a beneficial learning experience for medical and nursing students?**

**Carol Fordham-Clarke & Sally Richardson**

The purpose of the study was to determine whether medical and nursing students gained confidence in performing female catheterisation on a simulated model whilst receiving feedback from a patient educator. Patient educators have been used successfully within the medical school (Raj et al 2006, Wykurz & Kelly 2002) and were trained to provide feedback to the student on their ability to perform the complex motor skills of catheterisation in terms of maintaining asepsis and their use of communication skills with the patient during the intimate procedure.

Students self-selected to undertake the session with a practice educator from a convenience sample of year 4 medical students and year 2 nursing students. Due to time constraints the sample size was limited to 30 students. Eligible students had previously attended a teaching session where they had the opportunity to practice on a model following demonstration of the procedure. Each patient educator facilitated 2 students in a 45 minute session. Students therefore also had the opportunity to learn from their colleague.

The project employed a qualitative design using questionnaires to collect data from both students and patient educators. Students completed questionnaires before attending the session to determine their expectations of the session and explore their learning needs and following the session to investigate their perceptions of this learning scheme. Patient educators were asked about their role in developing the students' confidence in both clinical and communication skills.

Data is currently being analysed by the researchers. Initial analysis suggests patient educator facilitated sessions were an overwhelming success. Students came to the sessions with varying experiences of female catheterisation however all students felt they had benefited from the sessions in terms of confidence and competence and particularly enjoyed learning with students from a different discipline. It is intended to offer these sessions to more students this year.

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**O 31**

## CPR as a tool for students to learn how to act as an interprofessional team - does it work?

**Anita Hanis, Margareta Forsberg Larm**

**Background:**
Training for acute situations are often uniprofessional. New guidelines for CPR in Sweden was established 2006. This guideline is something that everyone working in the health care sector shall know and act out off. Team training are one of the goals at the interprofessional student ward. Training together makes it possible to connect theory and practice, knowledge leads to patient safety and quality assurance.

**Aims:**
Can the students learn how to work as a team while handle an acute situation as CPR? Can a tool like CPR training help the students to reflect on patient safety and quality assurance?

**Material and Methods:**
The first Day at the Interprofessional student ward the students are informed oral and with a written paper about the CPR team training than will take place the second week. The students are from medicine, nursing, occupational therapy and physiotherapy programs at Karolinska Institutet. All teams, 24, and all students, 140, participated during the last semester 2007.

**Results:**
The students value the CPR team training very high. Often there was a medical student that taking the leaders roll. Even students who never had been in a uniprofessional CPR training situation acted correct and supportive to the solution of the situation. Shortley afterwards the students reflected on alarm, leadership, guidelines, attitudes and communication in the team.

**Conclusions:**
CPR as a toll seems to be a way to learn even more how to act as an interprofessional team. The students value the learning high and point out that they prepare for the future and for patients safety.

**O 32**

## The international medical graduate (IMG) curriculum: a proposal for integrating professionalism with language and cultural competence

**Kara Gilbert and Beverley Bird**
**Monash University**

**Background:**
In Australia, state and federal governing bodies are experiencing considerable pressure to ensure competencies of IMGs via adequate training and support processes. At the same time, experts are calling for a unified, coordinated national approach to IMG education, training, employment and workforce integration.

**Purpose:**
The recent release in Australia of national curriculum standards for prevocational and general practice training provide the opportunity to align issues of IMG training and support with professional based competency standards set in the curriculum. In a project undertaken for the Victorian Metropolitan Alliance (VMA), data on difficulties faced by IMGs in both international and Australian contexts were gathered from two key sources: a systematic literature review and an empirical study of IMGs enrolled in a metropolitan GP training program. Although the scope of the study had broader aims, one of the recommendations made in the report to the VMA was a proposal for the development of an IMG curriculum.

**Methodology:**
Thematisation and subsequent mapping of IMG issues against curriculum frameworks were undertaken to establish the identification of professional knowledge, skills and behaviours for integration in a proposed national standard IMG curriculum, which is presented in two components: (1) Education (the language and learning needs of IMGs); and (2) Integration (the support structures required for integration of IMGs into the medical profession and linked Australian community).

**Results/Discussion:**
Alignment of IMG learning and support needs with professional-based competencies puts more emphasis on professional skills than ethnic and linguistic disparity in IMG training and support, promoting a skills acquisition rather than deficit model of learning. Additionally, it facilitates a nationally coordinated and systematic approach to IMG education and integration into medical workforce contexts.

**O 33**

## Can a national standard framework for IMG training and support be accommodated within an existing junior doctor curriculum framework?

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In a 2007 study undertaken for the Victorian Metropolitan Alliance (VMA) to look at the challenges faced by International Medical Graduates (IMGs) within the VMA General Practice (GP) Training Program seven core themes emerged. These themes identified factors that impact on IMGs education and practice of medicine in the areas of communication, performance, professional recognition, professional responsibility, interpersonal attributes, educational program and fellowship examination skills, and supervision and counselling. Interviews were conducted with key stakeholders in the VMA network to provide data on the IMG experience within the GP context. The themes identified by the study are reflected in the literature on IMG experience in Australia and elsewhere with similar workforce and recruitment approaches, e.g. Canada.

Although the scope of the study had broader aims, one of the recommendations made in the report to the VMA was a proposal for the development of an IMG curriculum. This paper will elaborate in more detail on that recommendation; particularly on the thematisation and subsequent mapping of IMG issues against curriculum frameworks to identify relevant professional knowledge, skills and behaviours for targeting IMG training and support

The significance of aligning the training and support of IMGs with an established Australian medical curriculum framework (viz. the Australian Curriculum Framework for Junior Doctors) will be discussed. It will be argued that curriculum alignment permits the disparate needs of the typically heterogeneous IMG group to be streamlined towards core professional competencies thereby challenging a concept of acculturation based predominantly on ethnic and linguistic orientation. The authors will promote a professional practice model of training that rests upon a skills acquisition, model rather than a

skills deficit model, of learning. Furthermore, the model will demonstrate a nationally coordinated and systematic approach to IMG education and integration into medical workforce contexts that has international relevance.

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**O 34**

## The feedback tool kit: supporting interprofessional collaboration on feedback strategy in clinical education

**Kara Gilbert, Brett Williams and Elizabeth Molloy**
**Monash University**

**Background:**
Since 2005, students have frequently reported dissatisfaction with the feedback they receive in the Faculty of Medicine, Nursing and Health Sciences. The project reported herein was undertaken as part of an institutional unit improvement strategy to improve the quality of feedback in learning and teaching across the medicine and health science courses at Monash University.

**Purpose:**
A staff professional development workshop on feedback was delivered in the School of Primary Health Care, which houses 5 disciplines: physiotherapy, nursing and midwifery, paramedics, health science, and occupational therapy. The workshop comprised a 3-hour programme with 37 participants (8 students, 29 staff). One of the key aims of the workshop was to evolve a 'take-home' tool kit of strategies for improving feedback in the participants' immediate learning and teaching contexts.

**Methodology:**
In a post-workshop questionnaire, participants were asked to consider both pedagogical and governance (viz. staff management and training) issues when identifying three feedback strategies that they would consider implementing in their teaching practice for the forthcoming semester. 24 respondents provided a total of 65 suggestions for feedback strategy. The strategies were collated and summarized, and descriptive categories developed: (1) Student orientation; (2) Provision and consultation; (3) Pedagogical methods; (4) Closing the loop; and (5) Governance. The strategies developed by the workshop leaders and participants were subsequently used to inform the design and content of a brochure on 'Tool Kit of Feedback Strategies for Educators and Students in Medicine and the Health Sciences'.

**Results/Discussion:**
The Feedback Tool Kit holds special educational significance in terms of:

a. cross-disciplinary applicability;
b. innovative engagement of students in staff professional development; and,
c. alignment of pedagogical and governance strategy in quality assurance.

**O 35**

## The clinical communication skills rubric (CCSR): responding to Australian and UK curriculum standards

**Kara M Gilbert, Monash University**
**Peter JM Barton, University of Glasgow**
**Johannes Wenzel, Southern Health**

**Background:**
Competency Standards for Pharmacists in Australia (CSPA, 2003)1 and the Australian Curriculum Framework for Junior Doctors (ACFJD 2006)2 provide an opportunity to align communication skills training (CST) with professional competencies. Additionally, the 2008 UK consensus statement on undergraduate communication curricula 3 has enabled templating of clinically essential communication skills.

**Purpose:**
The CCSR offers a functional framework for CST, blending linguistic and vocational perspectives in a linguistic-based professional competency model. The rubric fosters acculturation to professional communities of practice 4, promoting the integration of CST with clinical content and curricular learning outcomes.

**Methodology:**
The analysis was undertaken by a linguist/medical education expert (KMG) in consultation with a GP/clinical educator from the UK (PJMB) and Emergency Medicine/IMG training specialist from Australia (JW). Using NVivo qualitative data analysis software, communication skills were mapped against key documents including the CSPA1, ACFJD2, The Scottish Doctor5 and Tomorrow's Doctor6. Thematisation of communication skill competencies with learning outcomes informed the categories of core communicative competencies and the learning topics in the CCSR.

CCSR complements the UK consensus communication curriculum wheel. While the wheel offers a strategy for determining content (what), the rubric is a tool for specifying the process and behaviours of CST (how and when). Distinguishing features are the emphasis on motivating practitioners to recognize:

(a) the social effects and persuasive role of language in shaping knowledge, attitudes and beliefs of clinical audiences
(b) the influence of text design on audience comprehension
(c) the role of text organization and vocabulary in clinical contexts.

**Results/Discussion:**
CCSR is a set of ten core competencies articulated across three domains:

(1) Practitioner-Client Communication
(2) Peer-to-Peer Communication
(3) Attitude and Behaviour.

Learning topics are drawn from national curricula.

Relevance of the rubric to a broader international consensus on core CST competencies – e.g. application to IMG training– will be discussed as will the model's inter-professional and cross-disciplinary applicability.

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**O 36**

**viva voce clinical reasoning: adding value to communication skills training (CST) in clinical practice**

**Kara Gilbert and Gordon Whyte**
**Monash University**

**Background:**
Most of the literature on clinical reasoning focuses on the cognitive processes of diagnostic reasoning, emphasising the differences between novices and experts in practice. The authors of this paper focus instead on the articulation of reasoning in clinical practice to promote a communicative function of reasoning which expands on the diagnostic function typically associated with clinical reasoning per se. The authors will argue that articulation of reasoning is integrally linked with effective communication between clinicians and their patients as well as between clinicians in intra- and inter-professional interactions. As such, articulation of reasoning is presented as being important for improving patient safety outcomes and standards and is, therefore, recommended as an essential component of clinical CST.

**Methodology:**
The collaboration between a doctor and linguist draws on linguistic and argumentation theories to posit a model of reasoning for clinical practice. In the model, arguments used for inquiry, justification and persuasion are sketched in diagnosis, counselling, and management settings regarded as integral to everyday clinical practice.

The language data sets used to demonstrate socio-cultural and linguistic determinants of clinical reasoning strategy in medical culture are drawn from: (1) samples of language and communication in DVD education and training resources owned by the Victorian Medical Alliance (VMA), including the DVDs used for needs analysis of registrars[1] and the DVD developed as part of an IMG project[2]; and (2) discourse samples of IMGs in mock OSCEs that were videorecorded and transcribed for analysis as part of a Monash Arts Medicine Small Grants Scheme.

**Results/Discussion:**
The model is presented as a pedagogical strategy for teaching communication skills in doctor-patient as well as peer-to-peer contexts, emphasising the interplay between institutional, professional and personal discourses of the clinic in shaping reasoning in dialogue. Importantly, the model promotes argumentation theory in a rhetorical emphasis on clinical reasoning to add value to clinical communication skills training.

[1] *Consultation Skills and General Practice,* Victorian Medical Alliance
[2] *Education Series for GP Training,* Victorian Medical Alliance

**O 37**

**Using simulation to develop interprofessional teamworking, communication and clinical skills in final year nursing and medical students**

**Celia Goreham, Valerie Dimmock, Jeshen Lau**

**Aim:**
To evaluate initial learning and perceptions of final year nursing and medical students participating inan interprofessional simulation experience during which an acute clinical scenario was used. Also to see ifthe simulation experience had any longer term impact on participants clinical practice.

**Method:**
126 final year nursing and medical students participated in the project. 32 simulation sessions took place with approximately 3 nursing students, 1 medical student and 2 facilitators per session.

On completion of each session, all students were asked to complete a Likert scale questionnaire. 32 students took part in one of 6 focus groups; these were audio-taped and transcribed. After 10 months a follow-up questionnaire was sent to all the project participants. Results Students found the sessions unique in that through active learning they developed skills of teamwork, communication, and leadership. The students also increased their understanding of the different roles of health professionals. Active participation enabled students to become decision makers and by putting decisions into action they developed a sense of responsibility that gave a taste of what it was like to be in “real life” situations hence facilitating preparation for the real world as a qualified professional. Learning occurred through Vygotskian ‘scaffolding’ (1978).There was some evidence of students developing “contextual knowing” (Magdola 1992) through increased understanding and the construction of knowledge gained as a direct result of the simulation and feedback experience.The emotional effect of the experience also promoted learning (Short 2001).

Our study illustrates that interprofesssional simulation is a valid tool to develop nursing and medical student’s interprofessional team working, clinical, communication and assessment skills in acute clinical situations. Also the simulation experience helped to build students confidence and knowledge as they made the transition from student to novice professional.

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**O 38**

## Improving clinical knowledge and skills acquisition in IMGs after reaching the workplace

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**Aim:**
The objective of this training intervention is to facilitate improvement in the knowledge and skills acquisition of International Medical Graduates (IMGs).

**Background:**
Some IMGs have very basic skills while others have become de-skilled through long periods of absence from medical practice (Makoul, 2001). Direct observation of IMGs clinical skills are generally informal, and often outside a clinical training framework (McGrath et al 2006).

**Method:**
Austin Health employed a procedural clinical educator to scope, develop, deliver and plan for ongoing maintenance of procedural skills training for IMGs. The programme included 12 sessions using the same trainer for continuity. The target group of IMGs consisted of rolling numbers due to varying roster patterns.
The session contents were selected and developed following consideration of a need analysis conducted in January 2009. Training sessions were conducted in the clinical skills centre, utilising part-task trainers and direct observation. Training was delivered, for example, in venepuncture, IV cannulation, aseptic technique and ECG recording and interpretation.
Assessment tools were developed on a four point Likert scale which included ratings pre and post training. Feedback was given immediately post training, highlighting strengths and weaknesses, action plans were developed and follow up support was provided to participants as required. Subsequent to the training sessions on-line resources were made available to participants.

**Results:**
Feedback indicated that IMGs felt that their knowledge and confidence had been enhanced through the training sessions. All of the IMGs achieved a Likert score of 3+ after the training intervention, i.e. achieved status of ability to work independently without direct support. A review process was built in to ensure that all participants achieved competency.

**Conclusion:**
The training intervention demonstrated marked improvement in the knowledge and skills acquisition of the IMGs.
Evaluations of sessions by the IMGs indicated that they were well received and highly valued.

**Acknowledgements:**
* Austin Health is the major metropolitan provider of tertiary health services, health professional education and research in the North-East of Melbourne. Austin Health is world-renowned for its research and specialist work in cancer, liver transplantation, spinal cord injuries, neurology, endocrinology, mental health and rehabilitation. Austin Health comprises Austin Hospital, Heidelberg Repatriation Hospital and the Royal Talbot Rehabilitation Centre. During 2007-08, Austin Health's 7162 staff treated a record 85,670 inpatients and 151,968 outpatients.

* Project was funded by the Department of Human Services, Service and Workforce Planning, call for 2008-09 project submissions to improve the assessment, orientation and up skilling of international medical graduates, viewed on 15September 2008, Available on website: <http://www.health.vic.gov.au/workforce/medical.htm>

**O 39**

**Practice makes perfect: the doctor as communication teacher**

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**Aim:**
The main objective of this programme was to provide effective clinical communication training for International Medical Graduates (IMGs) by expanding the method of communication skills training delivery.

**Background:**
Many IMGs have received no formal training in communication (Kidd & Zulman 1994, Fiscella & Frankel 2000) and have little understanding of the importance of effective communication skills in developing strong, therapeutic and effective doctor-patient relationships (Makoul 2001) particularly in a new environment where the primary language and clinical practise differ significantly from their country of origin.

In February 2008, Austin Health piloted an in-house formal communication skills programme for IMGs, funded by the Department of Human Services* (DHS). Six formal communication skills sessions were facilitated in a didactic classroom-based setting by an externally contracted linguist.

One of the key recommendations of the pilot was that the sessions should be facilitated by a communications trainer with a medical background.

**Method**:
The revised training programme consisted of 12 sessions in a simulated clinical environment using a doctor as a communications teacher.

The new approach combined communication skill training with real life case scenarios. This provided a practical and learner orientated approach to communication skill training highlighting its crucial role in good clinical practice. Each session commenced with a study theme followed by a practical case scenario, role play and constructive feedback.

Training was delivered on cross-cultural communication, taking difficult histories, using interpreters, Australian Healthcare terminology, explaining results to patients, casual conversation and other language and inter-relationship building skills.

To objectively rate the success of this program a pre-and post-session self-assessment form was completed by the IMGís. This assessment tool was developed using a 4 point Likert scale. Online resources such as power-point presentations were made available to all IMGs post-session.

**Results:**
This transition of training delivery from a didactic classroom-based setting led by an external linguist into a simulated work-based environment with a medical communications trainer further enhanced communication skill levels and professional development in IMGs, which was reflected by significant improvements in the self-evaluation scores.

**Conclusion:**
Feedback from all IMGs regarding the programme facilitated by a communications trainer with a medical background indicated that the sessions were well received and all IMGs demonstrated noticeable improvement in their communications skills.

**Acknowledgements:**
* Austin Health is the major metropolitan provider of tertiary health services, health professional education and research in the northeast of Melbourne. Austin Health is world-renowned for its research and specialist work in cancer, liver transplantation, spinal cord injuries, neurology, endocrinology, mental health and rehabilitation. Austin Health comprises Austin Hospital, Heidelberg Repatriation Hospital and the Royal Talbot Rehabilitation Centre.
During 2007-08, Austin Health's 7162 staff treated a record 85,670 inpatients and 151,968 outpatients.
* The Department of Human Services (DHS) is Victoria's largest state government department. DHS covers the responsibilities of the Ministers for Health, Housing, Community Services, Senior Victorians and Mental Health. DHS plans, funds and delivers health, community and housing services in line with the government's vision for making Victoria a stronger, compassionate and innovative state. Austin Health and Melbourne University's institutes and departments have received more than $6 million in National Health and Medical Research Council funding as grants from DHS (DHS, 2005).

**O 40**

**The clinical skill of bibliotherapy: stories as a tool for practitioners to assist adolescents with chronic disease management**

**Pam Harvey, School of Rural Health, Monash University**

'We read to know we are not alone.' C.S. Lewis
Bilbiotherapy, or the use of books to heal, dates back to Ancient Greece where a sign above a library read "The Healing Place of the Soul". The first documented use of bibliotherapy as an intervention was in 1840 (Afolayan, 1992). In the 1930's, psychologists began to use bibliotherapy as a therapeutic strategy that gained momentum into the 1980's. The use of books to help people, however, is not confined to psychologists: Florence Nightingale read to her patients believing in the value of healing words and allied health therapists working with young children use books as a way of introducing hospital or illness to the newly diagnosed.

Bibliotherapy practice involves a person gaining insight about their condition and its effects, and learning new coping strategies based on how characters in a story manage their situation. A research project into the use of bibliotherapy for adolescents with chronic illness in secondary schools was conducted by a community physiotherapist (Harvey, 2009 (pending). Participants responded with a variety of useful bibliotherapeutic practises from utilising non-fictional textual resources to fictional books to assist adolescents in their chronic illness 'journey'. The use of books depended on the personal engagement style of the clinician rather than their occupation.

The use of stories as a management tool to assist adolescents experiencing chronic illness issues is a device that could be utilised by clinicians who like to work creatively with their clients. Appropriate material needs careful selection and may require a multi-disciplinary team approach. Written texts are one source of bibliotherapy, but with increasing use of IT and the skill of 'digital native' adolescents, books are no longer the only means of conveying 'story'. In this presentation, the clinical use of bibliotherapy is discussed, and multimodal ways of presenting stories are shown. Strategies for teaching bibliotherapy as a clinical skill will also be identified.

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**O 41**

**Performance and pressure: the effects of simulation on simulated patients**

**Pam Harvey and Natalie Radomski, Monash University, School of Rural Health**

The experience only stays in my mind a couple of days . . . for me it's a performance, one that is over when the season is over.

Simulated patients (SPs) have become commonplace in medical education[1] but their involvement varies greatly among health education institutions[2]. Although numerous research studies highlight the use of SPs for clinical assessment purposes, very few studies have investigated the effects of being a simulated patient on the person performing the role-play[3].

This paper presents our analysis of findings from a mixed-method research study investigating the effects of simulation on community volunteers involved in the Monash, School of Rural Health, Bendigo Regional Clinical School (BCRS), Year Four MBBS Objective Structured Clinical Examination (OSCE) program in 2008. We will describe the features of the BRCS Simulated Patient Recruitment and Training Program and share data generated from a series of SP focus group interviews, SP and Examiner OSCE feedback questionnaires and a follow-up postal questionnaire sent to the 19 SP participants three months after their OSCE role-plays. Practical strategies to better prepare, support, debrief and de-role simulated patients will also be suggested.

Our results indicate that 58% of SP participants reported experiencing immediate signs of stress from the OSCE performance situation such as headaches and exhaustion. 16% reported that they felt worried or concerned about the students. However, 37% of SPs reported that they were happy that they had been involved. In responding to a questionnaire three months after the OSCEs, 50 % of SP participants reflected that their involvement in the SP role-plays/OSCE events was a positive experience, regarding it as important community service opportunity that gave a sense of participation in the training of medical students.

**References:**

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## O 42

### Student´s collaborative learning in home care

**Kerstin Holmqvist Carlmalm, Margaretha Forsberg Larm, Päivi Kaila**

The aim of this pilot project is to develop undergraduate student´s learning of an inter professional collaboration and teamwork in home care with home visit.

**Method:**
We used small interprofessional groups and team comference with reflection as a learning method. A total of 26 medical, nursing, occupational therapy and physiotherapy students in clinical education during autum 2008 participated one afternoon with the purpose of interprofessional learning of collaboration and teamwork.
The patients, who have been informed before the home visit, were elderly multi-sick patients living at home with relatives or without. The students were prepared for home visit with clarifying reason and purpose of visiting. One of the supervisors followed students to the home visit. After visiting the students with their supervisors gathered in a team conference for reflection and summary.

**Conclusions:**
Student´s evaluation showed a higher grade of understanding of their own professional part, of other´s professional part and the importance of collaboration in home care in primary health care. Patients, we asked after the home visit, were very satisfied. The weakness was difficulties due to logistic problems such as information between teachers and supervisors who involved in the planning and performing of the home visit.
The inter professional learning situation in patient´s home seems to be of great value to the students in learning inter professional collaboration in home care. The method is very useful in creating a high quality pedagogic learning situation in primary health care.

## O 43

### Patient safety and clinical skills: Using a patient safety performance profile tool (PSPPT)

**Tangerine Holt [1], Beverley Bird [1], Brian Jolly [1], Merrilyn Walton [2], Gillian Nisbet [2] and Tim Shaw [2]**
[1]**Centre for Medical and Health Sciences Education, Monash University**
[2]**Office of Postgraduate Medical Education, The University of Sydney**

**Brief outline of context:**
Monash University and the University of Sydney, Australia collaborated on a project to improve the assessment of international medical graduates in Victoria, funded by the Department of Human Services, in collaboration with key health service organisations, and simulation and educational centres across Victoria.

**Key Objectives:**
To outline key principles of patient safety in the workplace;
- To discuss the etiology of the patient safety tool;
- To discuss the application of the patient safety tool in relation to workplace assessment;
- To engage in a wide-ranging discussion on clinical skills and patient safety with an emphasis on IMGs.

**Brief outline of problem:**
Patient safety has been identified as of paramount importance both in delivery of healthcare and in education of healthcare professionals. Improving patient safety demands a sustained, comprehensive and multi-faceted effort to identify and manage actual and potential risks to patient safety. There is little guidance about how this can best be achieved and few tools are available to accurately evaluate the performance of healthcare professionals around patient safety and quality. Although IMGs occupy between 23% and 28% of the physician workforce in the United Kingdom, United States, Australia (Andrew, 2001; Boulet, et al., 2006; Couser, 2007), there is no study addressing IMGs' application of patient safety principles.

**The Patient Safety Study:**
A pilot study was undertaken to develop, trial and validate an integrated set of workplace-based patient safety assessments which includes a Patient Safety Performance Profiling Tool (PSPPT) and Workplace-based Assessment package for IMGs and, potentially, other health professionals. The tool is based on the National Patient Safety Education Framework (Walton et al, 2006) and is mapped against both national internationally

validated which have effectively detailed the knowledge, skills and attitudes required by all healthcare workers and organisations to deliver safe care. The premise is "that safety is everybody's business, not just the responsibility of doctors or nurses or a particular occupational group for a narrowly defined activity". This presentation will focus on key issues around patient safety surrounding IMGs with the aim to understand, 'what is happening' and 'what should happen' on the utilisation of workplace assessment on patient safety and its systemic effects.
Given recent changes to the employment process in Australia for IMGs, non-specialists will have to work for a period under supervision and be assessed in the workplace. Consequently, assessment of patient safety performance utilising a comprehensive and multi-faceted approach, with an emphasis on agreed minimum standards regarding knowledge and safety to practice is essential.

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**O 44**

## Community based practice – an interprofessional approach to becoming a competent and caring professional

**Tangerine Holt [1], John Goodall [2], Craig Hassed [3], Helen Mandeltort [2], and Max de Courten [4]**
[1]**Centre for Medical and Health Sciences Education, Monash University**
[2]**Faculty of Medicine, Nursing and Health Sciences, Monash University**
[3]**Department of General Practice, Monash University**
[4]**Department of Epidemiology and Preventive Medicine, Monash University**

**Background:**
Monash University's MBBS Year 2 Community Based Practice Program (CBP), operating since 2002, has forged an innovative approach to the development of interprofessional collaboration, professionalism as part of clinical competence, improvement of patient safety and in good value preparation for clinical skills teaching. The program places students into a 14 day placement with 70 community agencies focussing on developing communication skills and empathy with marginalised groups, understanding issues of social justice as they relate to health delivery, working with a range of medical and health professionals, developing or evaluating a health promotion intervention project and formally reflecting on what it means to be a health professional.

**Purpose of the presentation:**
This paper presents results of data collected across 2008 from 305 students, 18 academic advisors and 120 field educators on the development of key competencies developed during the Community Based Practice Program. Student evaluations of the course over its years of operation have consistently reported increased understanding of, and confidence in, communication skills, especially when working with marginalised groups; the range of health support networks and professionals available to support patients but often not utilised by medical practitioners; and what professionalism means. Anecdotal evidence from students during subsequent clinical years has also highlighted the value of the program in preparing them for making the most of the opportunities within their medical clinical placements. Finally their experience with real health promotion projects gives them a deep understanding of health promotion interventions that could be applied to their clinical years of practice.

**Conclusion:**
The CBP Program provides integrated community learning experiences for medical students preparing a strong foundation of communication skills with a focus on the primacy of the patient's welfare at all times in a doctor-patient relationship.

**O 45**

## Dual identity development among health program students; an outcome of interprofessional socialization

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**Introduction:**
The World Health Organization (1978) and (2005) has stressed the need to prepare health professionals who can work within collaborative patient-centred teams to meet the challenges of growing complex patient needs. Researchers around the globe, in particular in the UK, the USA, and Canada, have heeded the WHO call and the result has been a proliferation of conceptual and empirical literature addressing some dimensions of interprofessional collaboration. In Canada, the Canadian federal government through the Health Canada IECPCP program (2006) and more recently the Ontario government (2007) is fostering a change in delivery of care within its health system in support of collaborative patient-centered practice (CPCP). According to IECPCP, the socialization of health program students is the micro level of analysis of interprofessional education (IPE). However, little is known about how to interprofessionally socialize the health program students.

**Body:**
According to psychology research, educating health professionals within unidisciplinary foci has perpetuated the current form of health delivery in which health professionals/students demonstrate ingroup and outgroup behaviours that lead to the distrust of outgroup members. Moving towards IPE across health disciplines and its outcome can be studied through application of Social Contact and Social Identity Theories. Considering that interprofessional socialization (IPS) is different from professional socialization, these differences can be analogized with the differences between intergroup and group socializations.
If IPE is to be effective in preparing students for CPCP, IPE through IPS needs to first break down the barriers among students (i.e., misperceptions). Second, IPE needs to have students develop another identity along with their professional one called interprofessional identity. Professional and interprofessional identities together create a 'dual identity' that helps students to simultaneously perform two related roles of being a member

of an interprofessional team and of being a representative of their own profession on the team.

**Conclusion:**
I will orient this presentation with a model that I have developed called Interprofessional Student Socialization Model (IPSSM) which highlights the process of interprofessional socialization of health students through IPE.

**O 46**

**Perceptions of the role of the clinical skills laboratory in preparing student nurses for the real world of practice**

**Catherine Houghton, Dympna Casey, David Shaw, Kathy Murphy**

The aim of this research project is to explore the teaching strategies used in clinical skills laboratories (CSL) and the factors which facilitate or hinder students' implementation of skills in the practice setting. This presentation will focus specifically on how the CSL is perceived by student nurses, newly qualified nurses, clinical staff and staff involved in clinical skills teaching in the CSL.

The research employed a national multiple case study research design. Data were collected using semi-structured interviews and non-participant observation in the clinical setting in five case study sites around Ireland. Analysis was undertaken according to Miles and Huberman (1994) using NVivo 8 software. Following coding, Broad thematic concepts were developed. In relation to perceptions of the clinical skills laboratory these themes were: CSL Structure; CSL Teaching Approaches and Transition to Practice. CSL Structure explores the physical layout and describes perceptions of the environment created in the CSL. CSL Teaching Approaches explores perceptions of the teaching and assessment approaches used in the CSL; for example mannequin use, OSCEs and scenario-based learning. Finally, Transition to Practice describes perceptions of how students make the transition from learning in the CSL to implementing their skills in practice.

A discussion of these findings will compare the perceptions of each participant group. Findings will also be compared to previous literature and conclusions drawn which will hopefully identify ways of removing barriers to effective clinical skills teaching and provide recommendations for best practice. In addition, there has been criticism of the primarily positivistic approach to research into clinical skills. This qualitative research allows an in-depth exploration in order to identify key areas for further research.

**O 47**

**Does a short-term interprofessional clinical placement early in a graduate-entry medical course affect students' readiness for interprofessional learning?**

**Hudson J N, Weston K M, Farmer E A, Ivers R G, Pearson R W**

**Introduction:**
An inter-professional educational initiative involving two cohorts of first year graduate-entry medical students was piloted at the University of Wollongong. The learning activity, a 3-week interdisciplinary clinical experience (ICE) where students worked with practitioners from a range of health professions, aimed to help students gain perspectives on professional roles, teamwork and inter-professional communication, and the impact of these on quality and safety in health care. Complexity theory provided the conceptual framework for the placement[1], with the National Patient Safety Education Framework guiding its implementation and evaluation[2].

**Methods:**
Implementation included briefings and resources for students and preceptors. Quantitative and qualitative methods were used to evaluate the outcomes from student and preceptor perspectives, including a pre-and post-ICE administration of a 4 sub-scale version of the Readiness for Inter-professional Learning Scale (RIPLS)[3] to students.

**Results:**
Most students and preceptors agreed that ICE met its learning outcomes, with reflective comments providing some insight in to the nature of the learning experience. Significant RIPLS findings included the tendency of medical students, post ICE, to agree less strongly with statements relating to 'Teamwork and Collaboration' and 'Positive Professional Identity', and disagree less strongly with those relating to 'Negative Professional Identity'.

**Discussion/conclusions:**
Early clinical encounters make students more confident approaching 'real' patients, increase their awareness of health professionals' roles, and facilitate their transition to the workplace. After the ICE placement, perhaps students were less positive in their responses to questions about 'teamwork and collaboration' and 'professional identity' due to the experience itself or because it reinforced negative beliefs about the value of learning from other health professionals who are not doctors. Alternatively, students may have had an underdeveloped professional identity themselves. Further study of the effect of preceptors, the educational climate and the learning experience itself, as well as the timing, should provide some insight in to the findings.

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**O 48**

**Are patients willing participants in the new wave of community-based medical education in regional and rural Australia?**

**Hudson JN, Weston KM, Farmer EA, Ivers RG, Pearson RW**

**Objective:**
Community-based medical education is escalating to meet the increased demand for quality clinical education in expanded settings and patient participation is vital to the sustainability of this endeavour. This study aimed to investigate patients' views on being used as an educational resource in medical student teaching, and whether they are being under- or over-used.

**Design, setting and participants:**
All patients attending 8 rural and 11 regional general practices over 18 teaching sessions provided consent for student involvement, and to complete a pre and post-consultation survey. The survey gathered data on their perceptions, expectations and acceptance of medical student involvement in consultations.

**Results:**
Ninety-nine percent of patients (N=118) who consented to medical student involvement completed pre-consultation surveys, with 83% (N=100) completing post-consultation surveys. Patients were overwhelmingly positive about their doctor and practice being involved in student teaching, and felt they themselves played an important role. Pre-consultation, patients expressed reluctance to allow students to conduct some or all aspects of the consultation, independently. However post-consultation, they reported they would have accepted higher levels of involvement than actually occurred. Regional/rural students were involved in patient consultations to a higher degree than previously reported for urban students.

**Conclusions:**
Patients in regional and rural settings are willing partners in junior medical student skill development. Our study extends the findings from urban general practice that patients are underutilised partners in community-based medical training. The support of patients from regional and rural settings should facilitate the expansion of primary care-based medical education in these areas of workforce need.

**O 49**

**Cognitive apprenticeship & authentic assessment within high fidelity simulated clinical environments: an education framework for bridging the gap between higher education and practice settings**

**Yvonne Jarvis, Dr Keith Weekes and Lesley Benson**

**Full Name:**
Yvonne Jarvis

**Position:**
Glamorgan Clinical Simulation Centre Manager

**University:**
University of Glamorgan

**Brief Biography:**
Yvonne worked as a staff nurse on an acute medical ward before moving into nurse education in 2000. Her role involves managing the clinical simulation centre within the faculty of health, sport and science and is actively involved in developing curricula to support learning through simulation.

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**Theme/Topic:**
Transfer factors: from simulation to reality.

**Background:**
A key driver behind the design and employment of authentic learning environments and authentic assessment is the requirement to bridge the perceived gap that exists between the processes of instruction, learning and assessment (Boud 1990, Gulikers et al 2004). Nowhere is this more critical than in the health care professions where learning and assessment schedules must support and measure the construction, synthesis and meaningful application of the knowledge, problem-solving and professional skills that underpin safe professional practice.

Previous & current work being undertaken in the field of simulation: Following 16 years of research and development of computer based authentic

learning and assessment environments (Weeks et al 2000, 2001, 2006), our focus has now extended to application of the underpinning education model within high fidelity simulated clinical environments. We will explore how a cognitive apprenticeship framework (Collins, Brown & Newman 1989) has been employed to:

1. Model and capture expert problem-solving processes via demonstration and use of video technology;
2. Support learning via the processes of coaching and scaffolding;
3. Facilitate articulation of learner's knowledge and skill;
4. Support reflection upon learner performance and diagnosis of errors via comparison of student performance with expert models.

**Presentation context:**
The context of the presentation will focus on the authentic assessment, reflection and feedback processes employed in the education of pre-registration nursing students when engaged in the management of an acute clinical emergency.

**Conclusions**:
Performance outcomes and nursing student evaluations following engagement in this innovative immersive learning and assessment environment will be presented.

**Take Home Messages:**
Employment of a cognitive apprenticeship and authentic assessment model offers a robust and practical education framework for both supporting learning and assessment within simulated clinical environments and bridging the gap between higher education and practice settings

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## O 50

### A three-stage model of skills transfer in the operating theatre – the experience of anaesthetists learning thoracic epidural anaesthesia

**Tim Johnson MBBS FFPMRCA MEd, Consultant in Pain Management and Anaesthesia Salford Royal NHS Foundation Trust, Salford, M6 8HD, UK.tim.johnson@srft.nhs.uk**

A three stage model of clinical skill acquisition and transfer was developed from a qualitative study of trainee anaesthetists learning to perform thoracic epidural anaesthesia in the operating theatre, a high risk procedure. The analysis used the phenomenology method of Larsson (1). Three stages of learning were identified as: induction, consolidation and extension, each of which requires very different actions and behaviours from the teacher in the form of training, supervision and promotion respectively. This assistance is necessary in order to progress and transfer skill from, for example, part- to whole-task performance and from supported to independent practice. The model is closely aligned with established models of skill transfer in the training literature e.g. Posner and Fitts (2) and Anderson (3), and is analogous to the sequence of learning to drive: learner (instructor hands-on, always present), provisional (mostly independent but protected practice) and experienced driver.The predominant problem that limited transfer of learning in this study was miscommunication or misunderstanding of the trainee's level of experience; this led to lost learning opportunities and potentially compromised patient safety. The other major consequence was stress and anxiety for all parties including, on occasions, the patients.This work challenges clinical teachers to provide more than passive and uniform 'supervision'. The vocabulary described is useful for negotiations between teacher and trainee for the exact type and level of contingent assistance role that is necessary for effective skill transfer in this and other critical care environments. I will present these findings and those of a current validation study that explores this model from the perspective of the teacher.

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## O 51

### A personal mentor for medical students – a way to enhance professional development?

**Susanne Kalén, Terese Stenfors-Hayes, Margareta Forsberg Larm, Uffe Hylin, Hans Hindbeck, Sari Ponzer**

**Background:**
Professional development is an important part of medical education. This study aimed to describe the students' experience of having a mentor during their clinical courses.

**Summary of work:**
Medical students at Karolinska Institutet were during their clinical terms 5-8 offered a personal mentor (MD with a short mentor training) with the aim to support the students' professional development. The students and the mentors were randomly matched. They met 1-3 times/term at any time that was convenient for them. All students (n=118) were asked to complete a web based questionnaire 0-1 years after the program was finished (response rate 67%).

**Summary of results:**
Having a mentor was a positive experience for most of the students in terms of both personal and professional development. However, the number of mentor-meetings and the students' satisfaction varied. The most frequent subjects discussed were learning and teaching in general, being a student and becoming a doctor, as well as future aspects in terms of specialist training and relation between personal and work life.

**Conclusions and Take-home message:**
Having a mentor was a positive experience for most of the students and enhanced the professional development. The engagement of the mentor is of great importance for the success of the program.

**O 52**

**Developing medical educators of the future – evaluation of the Dundee Education Vacation Scholarship Programme**

**Ker J., Hogg G., Mc Donald A., Lynch B., Dowell J., Reid G., Davis J., Kellett C**

**Background**:
There has been an increasing interest in what influences professional career choices (1,2) one of which is early exposure to a specialty. Medical education as a career is becoming increasingly popular particularly in the area of skills and patient safety (3). This paper shares a pilot programme to raise awareness of medical education as a career option amongst junior medical students.

**Methods:**
The Institute of Health Skills and Education at the University of Dundee invited members of the core teaching faculty to develop a proposal for a six week student educational project. A set proforma was submitted which included expected outcomes, an outline of supervision and a timetable.
Third year students were invited to complete an application form indicating their project preference. Supervisors were asked for a written report on completion of the project and the students were asked to present their work to the Undergraduate Medical Education Committee (Kirkpatricks evaluation level 2 and 3).

**Results:**
Six members of the undergraduate medical teaching faculty put forward a proposal for a six week student vacation scholarship all relevant to patient safety.

**The projects were:**
- Development of online interactive tutorials in basic science and clinical skills
- Prevalence of deception in medical school applications
- Theatre etiquette and scrubbing podcast Project (reducing incidence of HAIs)
- Pain management in palliative care ( reducing adverse events)
- The patient under the microscope (improving communication skills)
- Curriculum mapping public health and behavioural sciences in the undergraduate curriculum

27 third year students applied for the six scholarships available. Six were awarded using predetermined criteria. Resources produced by students are being piloted in the curriculum programme.

**Conclusion:**
This has been a very successful pilot with benefits for student learning in relation to enhancing their medical knowledge and developing generic skills. There is also added value from resources developed by students. The full impact of the initiative will need to be evaluated by following this cohort to see whether it influences their career choice .

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**O 53**

**Irish nursing students' perceptions of learning vital signs in a clinical skills laboratory prior to first clinical placement**

**Liz Kingston, Jill Murphy**

**Outline and background:**
The use of the clinical skills laboratories (CSL) has become increasingly popular within nurse education internationally and the role of simulation within clinical skills teaching has grown more sophisticated and complex (Feingold et al 2004). As students are afforded an opportunity to perfect their ability to perform clinical skills within the clinical skills laboratories Godson et al (2007) report that patients can be the beneficiaries of improved care. The study focuses on Bachelor of Nursing Science (BSc.) student's perceptions of using an intermediate-fidelity simulator (Alinier et al 2006) in the University's clinical skills laboratory to learn the skill of blood pressure.

The aim of the study is to explore nursing students' perceptions of learning vital signs in a clinical skills laboratory. Using a quantitative approach a sample of 50 from the population of first year nursing students (n=125) completed a questionnaire following two clinical skills teaching sessions and prior to their first clinical placement.

**Research results/evaluation findings:**
Research results were positive. Over 80% of respondents strongly agreed that the CSL facilitated a relaxed setting in which learning could occur and almost 70% of students strongly agreed that it was helpful to be able to learn from their mistakes. Over 97% agreed/strongly agreed that learning within the CSL environment increased their confidence in preparation for their first clinical placement. Over 80% of respondents agreed/ strongly agreed that the Nursing Anne mannequin was realistic and 83% agreed/strongly agreed that the mannequin allowed them to practice the skill of blood pressure measurement without practising on patients.

**Relevant conclusion:**
These findings are inline with those reported by the Nursing and Midwifery Council (2007) where evaluation demonstrated that simulation increased student confidence and provided a realistic environment for practice. A further study is recommended to explore if simulated learning enhances practice in the clinical setting.

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**O 54**

**Teaching and learning in a professional programme: qualitative student survey on case based learning**

**Lee MT, Levin A**

Speech and language therapy is a profession involved with a variety of clinical populations. Programmes are delivered across two streams: clinical and academic. The clinical component of Professional studies combines clinical placements with tutorials and lectures where the students gain practical experience of applying theoretical knowledge.

Over the past 2 academic years the teaching has changed to a case based learning approach. The students are provided with six clinical cases linked to theoretical knowledge modules. They must 'manage' these cases throughout the teaching year from referral to assessment, diagnosis, intervention management and discharge, including evaluation of therapeutic outcomes, and judgements on the efficacy of intervention for their client.

The current paper investigates the students' views of this pedagogical approach, and whether or not there are any differences in post graduate and undergraduate perceptions.

**Methodology:**
Self reported anonymous questionnaire dissemination to 80 first year post graduate and 43 second year undergraduate pre-registration cohorts. Response rate was high: 80% for undergraduates and 77% for post graduates. There was a mixture of quantitative and qualitative responses which were analysed using descriptive statistics, and topic themed qualitative methods.

**Results:**
1. There is a difference between undergraduates and post graduates in the understanding of how case based learning relates to other aspects of clinical practice: the post graduates demonstrated deeper insights into the value of this type of learning

2. Students in both undergraduate and post graduate cohorts wanted more case based study opportunities. However, there is some confusion as to the nature of case based learning. Possibly at an undergraduate level, this type of learning is more valuable in later years, rather than earlier training years.

3. The post graduates were consistently positive about the case based learning experience, perhaps indicating that a more mature learner is better able to engage in the more independent learning required by a case based approach.

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**O 55**

**Structured observation and assessment of practice (SOAP): a comprehensive clinical competence assessment that motivates student learning, promotes critical reflection and confirms nursing graduates' readiness for professional practice**

**Dr Tracey Levett-Jones, Jan Roche, Carol Arthur, Dr Jennifer Dempsey**

**Background:**
Contemporary clinical practice environments are dynamic and challenging; patient acuity continues to rise; there are increasing numbers of adverse patient outcomes (Aiken et al 2003) and escalating healthcare complaints (NSW Health 2006). While universities aim to prepare nurses to work in these complex, dynamic and unpredictable clinical environments, the nursing profession, regulatory authorities and government bodies have expressed concern about deficits identified in the clinical competence and readiness for practice of many graduates across Australia (Heath 2002; New South Wales Nurses and Midwives Board 2003). Too often clinical competence assessments comprise brief assessments of psychomotor skills, vague global assessment of generic skills/ attributes or assessments undertaken in simulated laboratory settings. The multidimensional nature of competence and the range of attributes required for contemporary professional practice are not always taken into account.

**Structured Observation and Assessment of Practice (SOAP):**
In order to address these educational and professional concerns an innovative clinical assessment model was implemented into the Bachelor of Nursing program at Newcastle University. This paper outlines the design, implementation and evaluation of this model, called the Structured Observation and Assessment of Practice (SOAP), a comprehensive and practice-driven clinical assessment that motivates student learning, promotes critical reflection and confirms graduates' readiness for professional practice.

**References:**
Boud (1995: 38) suggests that quality assessment practices require "contextualised, complex challenges, not fragmented tasks". He adds, "It is the use of more naturalistic in situ, multifaceted forms of assessment which provides the new challenge" (Boud 1995: 39). In the paper we will profile an approach that demonstrates that "good assessment is that in which the process of assessment has a directly beneficial influence on the learning process" (Boud 1995: 39).

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**O 56**

**Implementing the assessment of surgical performance in the operating theatre**

**Dr Joy Marriott, Ms Helen Purdie, Dr Jim Crossley, Prof Jonathon Beard**

**Background:**
Surgical training in the UK has shifted from an apprenticeship and examination model, without formal assessment of surgical skills, towards a competency-based surgical training programme, in which trainees are required to demonstrate surgical competence. Robust methods of assessing surgical performance are axiomatic, as they underpin the competency-based assessment strategy for all UK surgical specialties.

**Study overview:**
This study is designed to evaluate the validity, reliability and acceptability of three assessment tools for rating the technical and non-technical skills of trainees in the operating room. Two of these tools, Procedure Based Assessment (PBA) and Objective Structured Assessment of Technical Skills (OSATS), are the current workplace-based assessment tools used by UK Royal Colleges for assessing trainees' surgical competence and informing objective feedback. The third tool is Non-Technical Skills for Surgeons (NOTSS).

The study is funded by the NHS R+D and is due for completion in June 2009. To date, 320 surgical cases have been assessed, including trainees (n= 50) from six specialties. A PBA or OSATS is completed by the supervising Consultant (n=45) and one or more Independent Assessor (IAs). The IAs, anaesthetist (n=46) and theatre nurse (n=33) complete a NOTSS.

**Presentation Overview:**
This presentation focuses on the practical implementation of educational research for assessing surgical skills. We illustrate our experience using nine reflective themes, drawing upon some of the study's challenges, successes and solutions:

1. Relating the study design to research aim
2. Matching the research team to study design
3. Engaging workplace assessors
4. Training of workplace assessors
5. Recruiting in the surgical workplace
6. Consenting participants: Patients and Trainees
7. Research versus training agenda: A dichotomy or collaboration?
8. The significance of context: Inter-specialty differences
9. The power of the assessment purpose

Our intention is to provide valuable, generalisable lessons for researchers and clinicians working in the field of workplace-based assessment.

**O 57**

## Six-month retention and transfer of telephone communication skills following an inter-professional communication education session

**Marshall, S.**[1,2]**, Harrison, J.**[2]**, Flanagan, B.**[1,2]**, Hogan, J.**[1]
[1]**Southern Health Simulation and Skills Centre and** [2]**Monash University**

**Presented by:**
**Anna Koran**

**Background:**
Communication between professionals is an essential facet of safe and efficient healthcare [1].
Our prior research has shown that both the content and clarity of telephone communication can be improved after the teaching of a structured tool [2,3], however this study was limited by the short duration between the education and the testing scenario. The aim of this paper was to establish if this improvement was sustained and the tool continued to be used and remembered at approximately 6 months after the education session.

**Method:**
All 168 final year medical students undertaking a patient safety subject were invited to participate in the study, which had HREC approval. Unobtrusive audio recordings of a telephone referral were taken during a standardised simulation scenario and blindly assessed at the end of the study period for clarity and content using a previously validated scoring system [2]. Recordings were taken fromgroups prior to the training, immediately after the training and at approximately 6 months following the training. In addition, a questionnaire at 7 to 8 months following the education was administered to determine if the communication tool was remembered and for self-reports of use.

**Results:**
The previous data of 8 control (pre-intervention) and 9 immediate post intervention recordings wascompared to 19 recordings of the 6-month post education data. Two recordings did not follow the previous study protocol and were excluded.
The item scores (content) showed a trend towards an improvement from baseline but this did not reach significance ($p=0.116$) (Figure 1). Clarity scores were significantly improved from pre-intervention ($p<0.001$), but were not as high as the immediate post-training level.
Exact recall of the acronym of the ISBAR communication tool was achieved by 59.4% with 94% of the respondents having used the communication tool within the 7-8 months.

**O 58**

**Using a virtual learning environment (second life) to deliver simulation education**

**Jacqueline McCallum, Senior lecturer, Theresa Price Senior Lecturer, Val Ness, Lecturer and Andy Whiteford, technician, Glasgow Caledonian University**

Second Life is an Internet based virtual world that offers potential for innovative teaching of clinical skills and offers a range of new and exciting possibilities for educators and their students. Already, there is a broad range of educational institutions and organisations who are exploring the use of virtual worlds for the delivery of a wide range of courses and educational events including distance and flexible education, presentations and discussions, historical recreations, multimedia and games design and language learning practice (Nelson & Blenkin 2007). Therefore students can be prepared for real-world experiences by using Second Life as a simulation.

The aim of this qualitative research was twofold. First to explore the lecturers' experience of using Second Life within undergraduate nursing as a teaching and learning method. Secondly the students' experience of using Second Life for decision-making within a virtual ward based scenario. Three experienced nurse lecturers learned how to use Second Life and develop a learning experience for student nurses. A focus group interview explored their experience. Six third year nursing students from one HEI were orientated to Second Life prior to entering a high fidelity clinical simulation laboratory as Avatars (student nurses). They gained practice and experience in working through six case based realistic interactive patient scenarios, individually, followed by a semi structured interview on their decision-making. This presentation will present the findings of the qualitative data analysis of the lecturers focus group interview, generating themes as well as descriptive analysis of the decisions for prioritising care that the students made.

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**O 59**

**On-line learning - one package two universities: undergraduate nursing students views**

**M McGrath, F Neill, C Lyng, P Costello, G Cannon, A Adams**

The need for change in nurse education in Ireland was recognized by the Report of the Commission on nursing (1998). The report recommended that the undergraduate programme should be fully integrated into third level and this was realized in 2002 with the development of a four year degree course. This resulted in lecturers having access to technology not previously available which facilitated the development of innovative teaching methods and involvement in projects not previously possible. This paper presents one of those projects funded by the National Digital Learning Repository (NDLR).

The National Digital Learning Repository is a Higher Education Authority (HEA) funded scheme developed to support the development and sharing of digital learning resources between the Irish Universities. As part of the NDLR the nursing and midwifery community of practice aims to establish collaborative relationships in the development and sharing of e-learning materials among the academic staff in the education of nursing students.

During 2007/2008 staff from two Irish universities, Trinity College Dublin and Dublin City University, worked collaboratively to develop, implement, and evaluate on-line learning objects for undergraduate nursing students as part of the (HEA) and (NDLR) initiative. These students have diverse clinical experiences but must acquire knowledge and understanding of core clinical skills. The learning objects were developed to help students to deliver appropriate nursing care for a patient with respiratory difficulties. This was an aspect of patient care that students had identified as a concern when in clinical practice

The views of students from both institutions towards these online learning objects were investigated using a Likert style questionnaire, open ended questions and group feedback. The results will be outlined and compared and will include the perceived benefits and disadvantages of the online learning objects and their suitability for teaching clinical skills to undergraduate nursing students.

**O 60**

**Targeted preparation for clinical practice: Implementation and evaluation of a transition program**

**Dr Elizabeth Molloy and Professor Jenny Keating**

This research involved the design, implementation and evaluation of an innovative one week transition program. The aims of the transition program included i) to make transparent the expectations of clinical education and ii) to advance student knowledge and skills in applied adult learning to meet the challenges characteristic of the clinical environment. Undergraduate health professional students consistently report that they feel underprepared for the complexity and uncertainty of clinical practice (Poncelet et al 2008; Molloy and Clarke 2005; Ansari 2003; Neville and French 1991). The program was designed to help build students' clinical skills, communication, and skills required in navigating institutional norms.

The one week university-based preparatory program undertaken by third year physiotherapy students prior to clinical placements. Students responded to questionnaires designed to evaluate the perceived value of the transition program in preparing them for clinical practice. These were administered prior to the transition week, immediately following the intervention, and after 15 weeks of clinical education. Focus groups with eight student participants were also conducted immediately after the transition program and after 15 weeks of clinical education. The questionnaire data were evaluated using descriptive statistical methods, and the focus group data evaluated using Grounded Theory.

Data analysis revealed that although students reported high levels of satisfaction with the transition program, there was a mismatch between educator and student objectives in preparing learners' for clinical practice. Educators designed the transition program to provide learners with agency through the development of 'generic skills' in communication, leadership and critical thinking. In contrast, students' priorities reflected a 'survival focus', and a preoccupation with the attainment of technical skills. Despite this preference for activities promoting technical skill development, students acknowledged the benefit of educators and senior students providing heuristic, or 'tricks of the trade' information. The results suggest that in order to best prepare students for clinical education, teaching activities should promote both technical and professional skill development through engagement in clinical scenarios, where students perceive that they are attaining tangible skills with utility and transferability.

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## O 61

### The introduction of a clinical procedural skills passport for year 3 -5 medical students: was it worth it?

**Morley D, Parle J**

**Educational innovation:**
Acquiring competence in clinical procedural skills in a simulation environment and translating that to competence in performance is a difficult transition. To facilitate this we introduced in 2007 a clinical procedural skills passport (initially for Year 3 students). This showed which skills students should be: taught in simulation and when; practiced under observation in the clinical area; and then 'signed off' as competent to perform independently. Students are required to back up the data in their passports to an online database, and hand in their passport for periodic validation by administrative staff.

**Evaluation was by:**
- Open text question in end of semester module evaluations
- Structured discussions with student representatives
- Discussions at Undergraduate administrator and Clinical Sub-Dean away days and at appropriate committees

**Results:**
Almost all students acquired competence in simulation; most students achieved close to the required amounts of observed practice. Feedback showed students were largely in favour in principle of the passport, and very much liked the simulation teaching. Difficulties identified: over-prescriptive blueprinting of skills; being observed performing a procedure due to lack of opportunities and some staff being unwilling to participate; administrative issues: burdensome validation processes.

The online database has been significantly altered as a result of feedback, and validation processes streamlined. Students have also created 'good places to be get observed practice' advice sheets for each of the hospital placements

**Conclusion:**
This has been a successful educational intervention, valued by students and has attracted interest from postgraduate medical and other professional groups in the region. We would be happy to share the materials developed.

## O 62

### Improving remedial medical students performance in clinical skills assessment

**K. S. Murthy, M. Surgenor, G. Byrne**

Remedial education for poorly performing medical students' has shown limited and often contradictory outcomes.1,2,3 This study attempts to enhance understanding of the reasons for poor assessment performance amongst undergraduate medical students and investigates how a clinical skills based remediation programme might influence remedial medical students OSCE performance.4 This study was conducted over a period of 18 months on Year III medical students.

By utilising a mixture of qualitative and quantitative methods this study compares and contrasts three basic attributes of remedial students (n=30); which range from their perceptions of an assessment (OSCE) to their personality traits. In addition, this thesis prospectively examines the effect on remedial student's performance in OSCEs, of a training intervention.

The results indicate that the clinical skills-based remediation programme utilised had no effect on OSCE results, despite students' showing a good understanding of clinical skills required for satisfactory performance. Moreover remedial students have similar learning style preference (Honey and Mumford Learning Styles Questionnaire) and personality profiles (Myers-Briggs Type Indicator, MBTI) as that of non-remedial students. However, disclosure to the students of their remedial status seems to have significantly improved their OSCE performance.

Much of the literature on the effects of remediation focuses on quantitative studies of performance before and after intervention. These tend to focus on measurable performance outcomes rather than examine the underlying personality and learning traits of remedial students.

This study, now completed, adds to that literature by providing a range of data that has not been compiled in one single study and raises questions about the identification of remedial students and the importance of measurement of outcomes of remediation programmes. These studies suggest that traditional methods for improving remediation may be ineffective and that consideration of a range of personal student attributes may improve targeted remediation.

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**O 63**

**A clinical communication curriculum for peri-operative specialist practitioners**

**Barnet A, Nestel D, Kneebone R**

**Background:**
The Perioperative Specialist Practitioner (PSP) is a new professional role within surgery in the UK [1]. At Imperial College we have designed and implemented a training course for this role, piloting its first iteration in 2003. Effective communication with patients, their relatives and members of the surgical team is a key component. This paper describes an innovative simulation-based Clinical Communication Curriculum (CCC) [2] which runs through the nine modules of the course. A range of education theories underpinned the programme.

**Methods:**
The CCC has strong theoretical underpinning and uses simulation to enable participants to rehearse communication challenges.

**The CCC has two threads:**

1. Patient interactions such as communicating during patient assessment, while conducting a clinical examination, explaining a procedure, giving risk information, during a procedure and giving bad news

2. Interprofessional interactions such as giving feedback, making case presentations, handover skills [3], communicating during emergencies, writing referrals, use of patient care leaflets

Evaluation methods include observations, questionnaires, written reflections, interviews.

**Results:**
Thirty-eight PSPs have completed training. Responses have been very positive highlighting the opportunity to review familiar and acquire new skills. The educational methods (role-play and videotaping) have not always been comfortable although acknowledged as powerful learning tools.

**Discussion:**
This evaluation demonstrates the effectiveness of a layered CCC, building on expertise progressively. Simulation offers a valuable medium in which communication can be targeted. This approach offers a useful blueprint for other patient-centred roles, especially in the context of a healthcare system where patient safety

and effective communication must lie at the heart of each clinical interaction.

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**O 64**

## Defining the scope of simulated patient practice in teaching: stakeholder generated guidelines

**Ashwell V, Nestel D, Clark S, Tabak D, Tierney T, Paraskevas P, Higham J**

**Background:**
Simulated patients (SPs) make an important contribution to medical education. Although there are several valuable papers on the role of SPs in medical education [1-3], few articulate specific responsibilities. In response to quality assurance and evolving responsibilities of SPs, stakeholders generated a set of responsibilities for all those involved in SP based teaching - SPs, students, tutors, administrators and programme directors [1]. The guidelines articulate responsibilities before, during and after sessions. This paper will present the guidelines and their evaluation.

**Methods:**
Convenience sampling was used to survey stakeholders for their responses to the guidelines. Numerical data was analysed using descriptive statistics in SPSS 15.0. Free text comments were analysed thematically.

**Results:**
SPs (n=49), medical students (n=72), tutors (n=14) and administrators (n=3) responded to the questionnaire. Overall, the guidelines were highly valued by all stakeholders since they articulated the purpose of SP based teaching, clarified roles and responsibilities, highlighted the importance of collaborative learning, elevated patient perspectives, provided practical information and acknowledged SP contribution to medical education. Recommendations were made to further simplify and reduce the size of the document.

**Conclusions:**
The guidelines provide a shared understanding of roles and responsibilities for all stakeholders. The project demonstrated a commitment to this important expertise and we believe will help to attract and retain the most skilled SPs, ultimately improving the quality of student learning. Although there are limitations with the study we believe it has relevance where ever SPs support student learning.

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**O 65**

**Simulation to reality: The STEPS programme for basic procedural skills**

**Browne C , Nestel D, Flanagan B, French J, Harrison J, Campbell D, Somers G, Hill R, Chapman B,**

**Introduction:**
This study evaluates the impact of learning a procedural skill (peripheral intravenous cannulation) in a Simulation-based Training for Enhanced Procedural Skills (STEPS) module and its transfer to clinical settings. The study draws on situated, experiential and reflective practice learning theories.

**Methods:**
STEPS was designed to support acquisition of skills for safe and effective performance of clinical procedures.

STEPS comprises a DVD (integrated procedural knowledge and skills), simulation activities including hybrid simulations [1]with feedback from simulated patients and clinical experts [2, 3] (~3 hours) and supervised clinical practice (~ 1 hour).

The programme is underpinned by a generic rating form - Direct Observation of Procedural Skills (DOPS)[4].

Medical students were recruited to experimental (STEPS; n=15) and control ('semi-structured training'; n=20) groups. Students completed questionnaires (demographics, response to STEPS etc) and procedural assessments. Clinicians rated student performance using DOPS.

Descriptive and non-parametric statistics were used to analyse quantitative data (SPSS 15.0). Qualitative data were analysed thematically.

**Results:**
STEPS trained students outperformed the control group in clinical settings ($p<0.05$). Students valued the sequential delivery of information in the DVD - the overview, demonstration of psychomotor ("technical"), communication and patient safety skills, the DOPS form and patient perspectives. The experiential activities with peer and expert (simulated patient and tutor) feedback on bench top models and in hybrid simulations were helpful. Finally, the supervised practice in real clinical settings with clinician feedback was reported to facilitate transfer of learning.

**Discussion:**
STEPS supported learning in a basic procedural skill. The DOPS framework underpinning STEPS

provided structure for students to organise key elements of procedural skills. Raising patient perspectives alongside psychomotor elements of the procedure was innovative and valued.

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**O 66**

## Mixed messages: contradictions in professional practice

**Jenny Newton, Stephen Billett, Brian Jolly, Cherene Ockerby**

**Background:**
Nursing students report that they do not always find it possible to provide care in clinical practice in ways they were taught at university [1]. Moreover, they often do not feel supported or confident in their nursing skills, if these skills differ from those of the nurses on the ward. This circumstance is exacerbated when students question nursing staff about the use of improper techniques, only to be told that it is how things are done on this ward [1]. This paper reports findings from an Australian Research Council Linkage funded longitudinal study examining how both undergraduate student nurses and registered nurses engage in learning in the workplace. This paper focuses on the mixed messages that novice nurses experience in learning between the parallel worlds of academia and the clinical workplace.

**Findings:**
A series of one-on-one audio-taped interviews with novice nurses (n=28) over two years were conducted and thematically analysed. A central theme that emerged in relation to skill acquisition in the university settings was, “It’s not real”. Participants reported that skills they learnt in the classroom need to be modified and adapted based on their observations and experiences working alongside registered nurses in workplaces.

**Conclusions:**
The traditional manner of conceptualising knowledge translation is through the ‘theory-practice’ gap. This model views students as knowledgeable, but unable to apply their learning because of the impediments introduced by the students’ own lack of work readiness. However, two domains as ‘parallel universes’ exist. The learning spaces of academia and the clinical workplace create dissonance for students not because there is a ‘gap’, but because their practices and purposes are intrinsically different, their systems are in many cases co-existing, and sometimes opposed. This can present a challenge in determining what is conceived as being professionally competent.

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**O 67**

**To engage or not engage in clinical learning**

**Jenny Newton, Brian Jolly, Stephen Billett & Cherene Ockerby**

**Background:**
This paper presents data arising from an Australian Research Council Linkage project concerning the relationship between learners and the environment provided by the workplace in a nursing curriculum. The manner in which an individual participates in such environments is central to their learning, particularly so for students participating in clinical placements where they are somewhat reliant upon healthcare practitioners to facilitate meaningful learning opportunities. The literature suggests that learning is socially embodied and is relational between the individual and the location of practice[1]. The maximisation of students' potential for learning is established through the interrelationship of their values and the learning culture in which they participate.

**Findings:**
Data from a series of in-depth audio-taped interviews with student nurses (n=28) reinforces that the extent to which individuals chose to engage with the learning opportunities provided to them is influenced by their underlying values and dispositions. Students articulated that they often needed to be proactive in seeking out learning opportunities and became disengaged if their enthusiasm was not reciprocated by their preceptor. Engagement in the clinical environment centres on the dynamics of the learning partnership between student and their preceptor.

**Discussion:**
Students' engagement in learning from the university to clinical practice is influenced by the affordances offered to the student. This manifest in two ways: firstly that the students are provided with the opportunities to put into practice what they have learnt in clinical laboratories[2]. Secondly the receptiveness of the clinical environment to the student is pivotal in making these connections. Importantly, irrespective of intrinsic or extrinsic situational factors, "learning can only occur if the experience of the learner is engaged (p.8)" [3].

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**O 68**

**The effect of an operating room etiquette course on students' experience in the operating room**

**J.L. Nutt, R. Mehdian, R. McLeod, K Stirling, C.F. Kellett**

**Background:**
Medical students currently have no formal teaching in operating room etiquette skills (surgical scrub, gloving, gowning and dress code). Students report high levels of stress and anxiety when they are asked to scrub, glove and gown in the operating room. Students also feel unprepared for practice (Lyon 2004). This could affect patient safety within the operating room.

**Methods:**
We worked to create a more positive learning environment by developing a new course in operating room etiquette. We then compared operating room experience of two cohorts of students: The year group who attended the new course and the year above who had not. Prior to the students starting year 4 we implemented the new course. This included a practical session where students practiced how to scrub, gown, and glove and online learning material including a video. At the end of year 4, the students completed a questionnaire about their confidence and experiences in the operating room. These results were compared to the year above (year 5) who had not attended the course, at the same stage in their training, using the same questionnaire.

**Results:**
This paper demonstrates how 160 medical students can attend a practical operating room etiquette course in one day using minimal resources and staff, while making use of online learning material. It also demonstrated that students attending the new course were more confident and had an improved experience in the operating room compared to the previous year group. Full results and statistics will be presented.

**Conclusion:**
The implementation of an operating room etiquette course lowered anxiety levels and improved students' subsequent experience in the operating room.

**References:**
1. Fernando N, McAdam T, Cleland J, Yule S, McKenzie H, Youngson G. How can we prepare medical students for theatre-based learning? Med Educ. 2007 Oct; 41(10):968-74.

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**O 69**

## Informing future interprofessional clinical skills education: results of a state-wide learning needs analysis in Victoria, Australia

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**Aims:**
To determine both the current practice and the learning needs of Victorian Clinical Educators in interprofessional clinical skills and simulation training.

**Background:**
The Victorian Department of Human Services in Australia commissioned St Vincent's Hospital, Melbourne, to design, develop and implement a training program for allied health, medical and nursing clinical educators across 29 Victorian hospitals as part of their Clinical Skills Centres in Hospitals project. The purpose of this project was to improve access and quality of Victorian health professionals and students to simulation-based clinical skills training. A secondary outcome was to increase interprofessional training of clinical skills. Prior to developing both a Basic and an Advanced Clinical Skills and Simulation Course, a thorough needs analysis was conducted.

**Methods:**
A Learning Needs Analysis (LNA) questionnaire was designed using a modified Delphi technique. Items addressed demographics, current clinical skills and simulation-based training programs, facilities that clinical educators had access to and their levels of confidence teaching in a simulated environment. In addition, questions asked them to reflect on their knowledge of contemporary education theories and practice.

The data from the LNA was analysed both quantitatively and qualitatively using Microsoft Excel, and SPSS 15.0 software (Chicago IL). Where possible data were analysed using Pearson's Chi-square or Fisher's test

**Results:**
- There is a variety of experience levels of clinical educators across Victoria.
- Few of this cohort of clinical skills educators within Victoria had any formal qualifications in education. The Nursing clinical educators had the widest spread of formal education qualifications.
- There are more clinical educators in Victoria from the nursing profession than from the medical and allied health professions.
- The majority of time spent teaching clinical skills by the medical and allied health professions is within the 4 hours or less category.
- There is a substantial time allocation for the teaching clinical skills within the nursing profession.
- There is limited teaching of clinical skills currently occurring amongst the cohort in an interprofessional manner.

**Conclusion:**
A Learning Needs Analysis is a crucial component of course designs. The presentation highlights the implications for the ongoing teaching of interprofessional simulation based clinical skills.

**O 70**

## Beyond clinical skills: using non technical skills to increase patient safety

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**Aims:**
Demonstrate how Non Technical skills (NTS) relevant to accredited specialist training are taught in synthetic learning environments (Simulation) contribute to patient safety and compliment clinical skills in increasing patient safety.

**Background:**
The Australian Federal Government Department of Health and Aging funded the Australian Society for Simulation in Healthcare to conduct a consulting project looking at the teaching of non technical skills in simulated learning environments.
St Vincent's Hospital, Melbourne, was the successful tenderer for this project which consisted of a three stage process.

Engagement process / Literature Review,
Training Needs Analysis and Curriculum Mapping,
Piloting Process.

**Methods:**
An extensive Literature Review was undertaken into the use of simulation at postgraduate medical level for the teaching of NTS. These results were then used to flow into the Training Needs Analysis (TNA) and Curriculum mapping process. Three variations of an online TNA questionnaire were designed using a modified Delphi technique. Questionnaires were sent the following groups from three Australian specialist training colleges:

College Administrators,
Trainees
Trainers / educational supervisors.

Items addressed demographics, current NTS skills education and simulation-based training programs.

The data from the TNA was analysed both quantitatively and qualitatively using Microsoft Excel, and SPSS 15.0 software (Chicago IL). Where possible data were analysed using Pearson's Chi-square or Fisher's test.
The curriculum mapping and additional interview with supervisors and trainers outlined when and how skills were introduced and reinforced in the learning process and compared against the data from the TNA. The results of the TNA and curriculum mapping process then further informed pilot providers of the content and possible delivery methods.

**Conclusion:**
The results of the Literature Review, TNA and curriculum mapping process in conjunction with the piloting of the simulation based NTS courses will be discussed to assist in looking at how patient safety levels can be increased and compliment the teaching of clinical skills by specialist training colleges.

**O 71**

**Preparing students for effective workplace learning using a simulated urology clinic**

**Owen Lysa E, Byrne Derek, Ker Jean S.**

**Summary:**
This presentation describes the impact of using a simulated urology outpatient clinic in the undergraduate medical curriculum. The student evaluation demonstrates a positive impact on learning without compromise to the service provided for patients. This demonstrates that simulation can be used effectively to prepare students for learning in clinical environments where a significant proportion of patient care is delivered in ambulatory settings.

**Background:**
An increasing proportion of patient care in urology is delivered through outpatient clinics and day case surgery. 1 Clinical teaching therefore occurs in a very fast moving context with rapid patient turnover. Students need different skills to maximise their learning in such settings. Simulation provides a controlled environment in which to learn, enable deliberate practice and ensure that students are prepared for learning.

**Methods:**
Groups of 18 Year 4 medical students participated in a two hour session based around an eight station simulated urology outpatient clinic.
Patient scenarios were based on four core clinical problems in urological practice; loin pain, haematuria, lower urinary tract symptoms and scrotal swelling.
Each student had six minutes to take a focussed history, then six minutes to present the case to a tutor.
Four groups were invited to evaluate their experience.

**Results:**
160 Year 4 medical students participated in the simulated clinic.
56 (82%) completed an anonymous online questionnaire.
98% of students agreed that the simulated clinic helped them take a focussed urological history
98% agreed that the simulated clinic helped them to present a case based on a core clinical problem in urology.
89 % of the students agreed that the simulated urology clinic prepared them for learning in the out patient environment

**Conclusion:**
This session enabled students to revisit prior knowledge and skills in a rich contextual setting, to allow a constructive process to occur and to enhance transfer beyond the classroom and can be effectively used to prepare students for learning in specific workplace contexts 2, 3.

**References**
1. Department of Health: Day Surgery: Operational Guide. Waiting, Booking and Choice. August 2002.

2. Ker J, Bradley P (2007) Simulation in Medical Education. Association for the Study of Medical Education, Edinburgh.

3. Ker J, Mole L, Bradley P. (2003) Early introduction to interprofessional learning: a simulated ward environment. Medical Education. 37:248-55

## O 72

### Effect of mentoring on public health nutrition competency development: results from a program for recently graduated dietitians

**Claire Palermo**

The public health workforce internationally is fundamental for improving population health. Nutrition is a clearly identified discipline of public health. The public health nutrition workforce in Australia is small in size and has identified a range of competency development needs. Mentoring has been proposed as a workforce development strategy to support post-graduate competency development in the public health nutrition workforce. This work is part of a larger action research project investigating the role of mentoring in public health nutrition workforce development. A group mentoring program for recently graduated (<5 years) dietitians working in public health and community nutrition in Victoria was conducted from July 2007 to March 2008 with the aim of improving workforce competence. Thirty-two dietitians participated in three separate mentoring groups (two face-to-face, one electronic). Participants undertook a post program semi-structured interview which explored participants work role, experience and outcomes of participating in the mentoring program and competency development. Data from transcripts were analysed and themes derived using a content analysis approach. Four key themes were identified: (i) a safe, supportive and challenging environment enabled learning; (ii) the structure and function of the group program facilitated reflective practice; (iii) the mentoring program increased capacity to undertake public health nutrition through reorienting their practice away from clinical practice and instilling passion in a primary prevention approach; and (iv) public health nutrition competence increased, however other factors, such as on the job learning and other education/training, also contributed to this development. This work identified the potentially influential nature of mentoring as a component of public health competency development. The pedagogical framework from the mentoring program researched in this study may be useful for other health professionals considering mentoring as a workforce development strategy.

## O 73

### Junior medical students strongly support the use of simulated patients to teach female pelvic examinations: a report from a large UK medical school

**Jim Parle, K Barry, D Morley, M Calvert, S Irani**

**Study Objectives:**
Gynaecology Teaching Associates (GTAs) are widely used to teach pelvic examinations (PEs) around the world but not the UK. To date only 2 Medical Schools in the UK have routinely used GTAs. It is becoming increasingly difficult for students to gain experience in performing PEs; we have therefore investigated the acceptability of using GTAs in a UK Medical School with a culturally diverse population.

**Methods:**
Subjects – 132 undergraduate medical students (51 male) in 3rd year (first main clinical year). 30% ethnic minority– predominantly South Asian.

**Teaching session:**
1 GTA and 1 co-facilitator, no clinician. Format: initial discussions with students (n=4) exploring student concerns; DVD showing PE on patient; demonstration by the GTA of a PE on manikin; students practice on manikin; students perform PE on GTA with simultaneous feedback from GTA, while other students observe.

**Data Sources:**
Modified Gynaecologic Examination Distress Questionnaire (GyExDQ) with 4 point Likert scale, covering students' comfort with performing abdominal and pelvic examinations; rating of GTA as teacher (See tables). Free text comments in 4 areas.

**Results:**
Qualitative results overwhelmingly positive with comments about the professionalism of GTAs and praising the supportiveness of the programme. Some students commented on wanting to examine patients with pathology and would have liked to use a speculum and take a swab.

"The facilitators were very good at making something uncomfortable a lot easier."
"Very good, helped increase confidence doing pelvic examinations in a safe environment where I was able to ask questions and get feedback."
"Being the first time I've actually touched a vagina I can't help but feel I practically assaulted the poor GTA and would like to apologise. However if anything I am glad it wasn't a patient and instead someone was willing to let me try."

## Results:

Table 1 Before and after comfort measures showing mean scores (range 0-3 from very uncomfortable to very comfortable)

**Results**:

**Table 1 Before and after comfort measures showing mean scores (range 0-3 from very uncomfortable to very comfortable)**

| | Before | After | Before | After |
|---|---|---|---|---|
| | Male | | Female | |
| Palpating abdomen | 2.53 | 2.65 | 2.43 | 2.65 |
| Inspecting external female genitalia | 1.14 | 2.22* | 1.36 | 2.22* |
| Separating labia majora and inserting fingers into vagina | 0.82 | 2.04* | 0.84 | 2.06* |
| Talking to patients while performing intimate examination | 1.14 | 2.25* | 1.3 | 2.3* |

* statistically significant

**Table 2 Perceptions of GTA as teacher showing mean scores (from 0 very unsatisfactory to 3 very satisfactory)**

| | Male | Female |
|---|---|---|
| How well do you think the GTA facilitated the introductory session | 2.86 | 2.84 |
| How well did the GTA explain the technique required for the examination | 2.86 | 2.89 |
| How would you rate the quality of feedback you received from the GTA during and after the pelvic examination. | 2.84 | 2.88 |

## Purpose:

We have demonstrated that using of GTAs to teach PEs with junior medical students in a large multi ethnic UK undergraduate medical school is strongly supported by the students.

## O 74

## Using technology to support acquisition of clinical skills in nursing orientation

**Heather Pollex RN, EdD; Anya Wood MDE; Claire Mallette RN, PhD**

## Background:

Until two years ago, nursing orientation consisted primarily of lectures conducted by Nurse Educators. Delivery was inconsistent; learning styles and learners' previous knowledge and experience were seldom acknowledged; and, orientees experienced information overload. Most clinical skills were acquired on the job. According to Kolb (1984), transfer of learning into performance occurs most completely when the learner engages in all stages of the experiential learning cycle. Recognizing the need for a more effective model of teaching-learning, we implemented a blended approach that combines two technology-based educational methods for teaching clinical skills – eLearning and simulation.

## Method:

Today, much of the didactic classroom content is captured in interactive eLearning modules containing factual information, links to hospital policies and other resources, as well as problem-solving scenarios that engage the learner. Completion of these eLearning modules prepares the orientees for participation in a one-day simulation lab where they engage in hands-on practice with computerized mannequins in a controlled environment. Orientees rotate through a series of skill stations designed to build on knowledge acquired through the online courses. Nurse Educators located at each skill station provide support, demonstrate techniques, and answer questions.

## Evaluation:

Evaluation of this technology-supported approach is ongoing. Data obtained is primarily qualitative. Feedback regarding relevance of and satisfaction with the eLearning modules is obtained through online surveys. Reports generated through the learning management system allow us to track elearning completion and test scores obtained. Simulation lab evaluation forms are completed by the orientees and focus groups are conducted to further inform us. Educators assess clinical skill performance of the orientees on the unit.

**Results:**
Orientees and educators alike have expressed satisfaction with this technologically-supported approach. Orientees have found that eLearning, in combination with the simulation lab, provides a more powerful, meaningful learning experience that prepares them for real-life clinical situations.

**Reference:**
Kolb D.A. (1984). Experiential learning: Experience as the source of learning and development. Englewood Cliffs, N.J:Prentice-Hall.

**O 75**

## Investigating new approaches to facilitate the learning of intimate examinations for health care professionals

**Nick Purkis**

**Background:**
This paper addresses the issues of how health professionals learn how to conduct female pelvic examination. The acquisition of skills, such as female pelvic examination, by healthcare professionals has historically been learned in practise. However, demographic changes and fiscal pressures have resulted in fewer hospital patients who spend less time in hospitals and are more often than not too sick to be 'practiced' on. Furthermore, with fewer patients in hospital and more care being conducted in the community setting, there is less time for health care professionals to learn skills in out patient clinics. The use of Gynaecological Training Associates (GTA) is one alternative to assist health care professionals learn female pelvic examination, as they provide teaching whilst allowing the student to practice on them. The GTA is a non-medical female trained to teach pelvic examination while themselves being examined by students.

**Methodology:**
A mixed method of data gathering was employed: qualitative and quantitative. Qualitative data were gathered by conducting telephone interviews with three employed GTA's within the United Kingdom (UK). The interviews were recorded and transcribed with data being analysed with emerging themes identified.

A questionnaire was devised which comprised six questions. Three questions asked the student to comment on their confidence, communication and ability following a GTA session where they were taught how to conduct a female pelvic examination and scored using a Likert scale (Likert 1952). Three open-ended questions asked the student to comment on their anxiety prior to the session; and on the advantages and disadvantages of the session as perceived by themselves. The rationale for using open-ended questions was to obtain a broad range of data that could then quantified using themes where appropriate.

Questionnaires were distributed to 160 students following a teaching session by a GTA. There was a remarkable 100% response rate, which may have been due to the fact that the students were asked to fill out the questionnaire immediately following the teaching, and may have felt some obligation to complete the questionnaire.

**Results:**
The findings highlight issues within this framework of training from the student's and the GTA perspective.

From the GTA perspective three major issues emerged: training, recruitment and patient perspective. These issues highlight that discrepancies exist on the GTA training itself; that thought needs to be given when advertising and recruiting for a GTA and that the GTA can give the student a patient perspective when teaching this vital skill.

Conducting this intimate examination highlighted some key areas within the student questionnaire that need addressing. Firstly, students are embarrassed when conducting this skill, which is to be expected, however, the feedback they can receive from a GTA can increase their confidence and thus decrease the embarrassment felt. Secondly, conducting the examination on the GTA ensures the students learn to palpate real anatomy, which can increase competency skills.

**Conclusions and recommendations:**
This study showed that the using a GTA can facilitate the learning of intimate examinations for health care professionals.
From a global perspective, further research is needed into specific GTA areas, along with a more reliable and valid questionnaire to measure GTA teaching effectiveness.
Regarding the recruitment of GTAs more work needs to conducted regarding job description, person specifications, remuneration and a career pathway.
The training of GTAs is an issue with clear guidelines needed on a training pathway and package. This would include: interpersonal communication training, student feedback training and anatomy and physiology training.

**O 76**

## Using innovative simulation to teach medication safety to nurses

**Dr Kerry Reid-Searl, Dr Helen Bellchambers, Dr Tracey Levett-Jones**

**Abstract Background:**
Medication safety isa global concern and safe and effective medication practices by nurses are critical to quality medication outcomes for patients (Bellchambers & McMillan, 2007). The educational preparation of nursing students as practitioners of quality use of medicines (QUM) can be challenging, especially in the on-campus environment (Levett-Jones, 2008). Research into the practice of nursing students and medication safety highlights the need for more engaging, interactive and authentic learning experiences (Reid-Searl et al, 2008).

**Outline of the work:**
This paper presents selected findings from an innovative simulation project that enhances nursing students' learning about QUM. The project employs the creative use of commercially prepared latex masks and other 'props' to bring unpredictable characters (such as 'Cyril Smith', 'Dudley Dawes' and 'Iva Sore') to life. These characters model 'typical' client responses and behaviours. They are the brainchild of Dr Kerry Reid-Searl, who, together with other academics, role play medication practices such as assessment, administration and monitoring of therapeutic outcomes. The 'characters' (research academics with broad and diverse nursing backgrounds and rich story-telling' abilities) actively engage students in the simulation activities and encourage critique of their actions in a way that is both entertaining and educational.

**Findings:**
Preliminary findings confirm the value of this teaching and learning approach. Typical student comments include: "I learnt more out of the ten minutes with Cyril than I usually do in two hours". "It was an interesting way of learning and remembering all the steps that need to be taken when preparing and administering medications". "When reading and studying not all of the information is absorbed. But Cyril was entertaining and funny and touched on the most important parts of the course. It was an excellent way to learn".

**Conclusion:**
This paper will outline the development,

implementation and evaluation of an innovative simulation approach for the teaching the quality use of medicines to nursing students.

**References:**

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**O 77**

## Attitudes and interactions among simulated patients (SPs), students and medical school tutors

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**Philip R Belcher, MD FRCS**
**Peter Barton MBChB, MBA**
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**Background:**
This paper reports on an international collaborative study (Scotland and Japan) of SPs attitudes and experiences in structured learning activities in medical programs. The study aimed to examine the interactions of SPs with tutors and students, by year of seniority, in order to inform recommendations to improve the learning experience for all stakeholders. The data will be used for quality enhancement of teaching and feedback, and as a baseline for the introduction of Volunteer Simulated Patients (Lay Medical Educators).

**Methods:**
Standardised questionnaires were sent to 750 undergraduate medical students in second, third and fourth years, 89 vocational studies and communication skills tutors, and 79 simulated patients. 39 questions were common to each group. Free text comments were solicited.

**Preliminary Results:**
The Year 3 student response rate was 192/249 (77%). The complete Year 4 and Year 2 responses are awaited (so far 60%). 46/79 (58%) SPs have returned a response; 59/89 (66%) tutors have replied. Once student questionnaires are returned, the data will be statistically analysed, to determine similarities or otherwise between the three groups and also between student year groups.

This paper reports on the early analysis of the data set. However themes emerging from free text comments include:

**SP's:** joint training with tutors (n=6); conflict with tutors about student feedback (n=7); and pay (n=5).

**Students:** feedback neither specific nor stringent enough (n=27); and negative personality traits of actors n=38)

**Tutors:** feedback (n=17); appreciation of the educational level of the student (n=4) joint training events (n=11)

**References:**
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Bokken L, van Dalen J, Rethans JJ. Performance-related stress symptoms in simulated patients. Medical Education 2004;38:1089-94.

Gilliland WR, Pangaro LN, Dowing S, Hawkins RE, Omori DM, Marks ES, Adamo G, Bordage G. Teaching and Learning in Medicine 2006; 18(3):188-95.

McNaughton N, Tiberius R, Hogers B. Effects of portraying psychologically and emotionally complex standardized patient roles. Teaching and Learning in Medicine 1999; 11(3):135-41.

**O 78**

## How can clinical skills education improve patient safety? - Is cue acquisition and clinical reasoning influenced by the use of high fidelity human patient simulation?

**Roche J., Levett-Jones T., Hoffman K., Hazeton M.**

**Background:**
Nurses with effective clinical reasoning skills have a positive impact on patient outcomes. Conversely, those with poor clinical reasoning skills often fail to detect impending patient deterioration resulting in a "failure-to-rescue"[1]. The term clinical reasoning describes the process by which nurses (and other clinicians) collect cues, process the information, come to an understanding of a patient problem or situation, plan and implement interventions, evaluate outcomes, and reflect on and learn from the process[2]. Clinical reasoning is not a linear process but can be conceptualised as a series or spiral of linked and ongoing clinical encounters.

In clinical practice experienced nurses engage in multiple clinical reasoning episodes for each patient in their care. However, clinical reasoning is a learnt skill[3]. For nursing students to learn to manage complex clinical situations effectively, it is essential that they learn the process and steps of clinical reasoning.

The recognition of cues and clusters of cues is the fundamental basis of clinical reasoning. Cues are identifiable physiological or psychosocial changes experienced by the patient, perceived through history or assessment and understood in relation to a specific body of knowledge. Early subtle cues when missed can lead to a "failure to rescue"[1]. Similarly, when the correct cues are not acquired all of the actions that follow can be incorrect. Nursing students must be helped to understand how cues shape clinical decisions and the connections between cues and patient outcomes[4].

**Outline of the Research:**
This paper will present the results of a quasi experimental study that examined how nursing students develop and demonstrate clinical reasoning skills using medium and high fidelity human patient simulation manikins. The simulation experiences were videoed and the resultant data subjected to content analysis. This paper will focus on the cue acquisition stage of clinical reasoning and demonstrate how students collect and interpret cues to inform their clinical reasoning.

**References:**
1. Aiken, L.H., Clarke, S.P., Cheung, R.B., Sloane, D.M. and Silber, J.H. (2003) Educational levels of hospital nurses and surgical patient mortality. JAMA. 290 (12), 1617–1620.

2. Hoffman, K. (2007).Unpublished PhD thesis, A comparison of decision-making by "expert" and "novice" nurses in the clinical setting, monitoring patient haemodynamic status post abdominal aortic aneurysm surgery. University of Technology, Sydney.

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**O 79**

## Clinical skills education in the transition to practice phase of undergraduate medical education; an evaluation of a pre-intern transition program

**K. Rooney, J. Barr and K. Ogden**

**Introduction:**
Enhancing medical students' transition from undergraduates to junior doctors working in a clinical environment is important for the health outcomes of their future patients and their own professional wellbeing. This opportunity to support, de-mystify uncertainty, to review key areas of clinical care, and to re-affirm the principles of professional behaviour and individual and institutional responsibilities and systems, is to the best advantage of the patient and the "soon to be doctor".

A four week pre-intern program (PIP) was designed and delivered, for the first time, at the Launceston Clinical School, Tasmania, Australia in 2008.

**Background:**
Whilst undergraduate curricula may address the theory and the practice of clinical medicine, the subtleties of professionalism, understanding roles, the traps of institutional cultures including the hidden curriculum, the uncertainty of capability, the concern for safe and legally defensible practice and the reality of team work, all surface as immediate critical concerns. It is acknowledged that little detail of such courses has been published so sharing our experience and evaluation findings may help further the capabilities of medical educators in meeting these pre-vocational needs.

**Methods:**
A suggested framework by Poncelet and O'Brien (2008)was employed for designing the PIP course at the Launceston Clinical School.

The evaluation was done by pre and post testing, which included both quantitative and qualitative components. The post test included a measure of how much PIP contributed to knowledge, understanding and confidence in different areas.

**Outcomes:**
Evaluation of the program gathered important data about: areas for course improvement, better understanding of pre-vocational issues and therefore how we can better support and develop final

year students' understanding of the clinical skills requirements of their new junior doctor role. These findings, along with the program design, will be presented for comment and discussion.

**Reference:**
Poncelet, A. and B. O'Brien (2008). "Preparing medical Students for Clerkships: a Descriptive Analysis of Transition Courses." Academic Medicine 83(5): 444 - 451.

**O 80**

**Perspectives on the use of video in the clinical teaching environment**

**K. Rooney, K. Ogden, J. Barr**

**Background:**
Traditional clinical teaching models face challenges promoting a truly patient centred approach to health care. The Launceston Clinical School's Patient Partner Program (P3) tackles this by providing senior medical students with mentored small group learning with real patients from the community, engaged and consented as participants in teaching. P3 allows students to practice, integrate and refine their clinical consulting skills.

Video is an acceptable, adaptable and effective teaching and learning medium offering multi-sourced feedback, a means to develop clinical reasoning skills, and a platform for educational research.

Videotaping a P3 integrated consultation occurs 2-3 times/year for each student. Their performances are self-rated, rated by peers, tutors, patients and a video observer – this learning strategy allows formative structured feedback to map student progression.

**Summary of Results:**
The challenges (acceptability, security, ethics, consent), advantages (effective feedback for work place learning; platform for educational research, clinical tutor professional development), and disadvantages (resources, technology) of video use will be discussed, including students' experiences with videotaping for learning, presented.

**Conclusions:**
Our experience and evidence add to the knowledge about the benefits of video in formative assessment and learning. Ongoing iterative evaluation will further strengthen its use and inform uptake in other arenas.

**O 81**

**Early curricular exposure to scenario-based simulation can increase awareness and confidence in medical students of the importance of the generic skills of introduction and consent, safety, respect, dignity and comfort**

**Catherine Ross, Nigel Hart, Helen Wilson, Margaret Sterling Clinical Skills Education Centre, School of Medicine, Dentistry and Biomedical Sciences, Queens University Belfast**

**Background:**
Meeting with real patients for the first time in a clinical setting can be a daunting experience for medical students. However, patient contact is an integral component of medical education, training and assessment (1). "The Communication Curriculum Wheel" (2) highlights respect for others as underlying all other components of effective clinical communication. In addition, a recent paper (3) gives guidance on how to promote the concept of safe, high quality care across all healthcare curricula and on how to instill a culture which recognizes patient safety as the number one priority.

In order to emphasize these important issues and build on Communication Skills learning, we designed interactive ward-based clinical scenarios using simulated patients. Learners worked in groups of 6 in a simulated hospital bed area with each playing the role of doctor in turn. Students were reassured that no prior knowledge was required and that the session would be conducted in an informal atmosphere. As the session progressed the scenarios became increasingly more complex highlighting the themes of introduction and consent, safety, dignity, comfort and respect. On completion of each scenario, students were invited to reflect on the experience and were given feedback on their performance from peers, teacher and simulated patient.

Student feedback via questionnaire showed that students found feedback valuable and constructive and that they perceived that their confidence in dealing with patients in a clinical setting had increased.

**References:**
1. BMA-Role of The Patient in Medical Education September 2008. www.bma.org.uk/ap.nsf/Content/roleofthepatient Dec.08

2. UK Consensus Statement on the Content of Communication Curricula in Undergraduate Medical Education. Medical Education 2008; 42: 1100-1107

3. Promotion Of Safe, High Quality Health And Social Care in Undergraduate Curricula. June 2007 www.dhsspsni.gov.uk

**O 82**

## Validation of the "quality of SP feedback instrument" - a generalizability study

**Claudia Schlegel. Berner Bildungszentrum Pflege, Berne, Switzerland**

### Introduction:

Students need adequate feedback about their performances to benefit from educational programmes and to improve their learning. In nursing education, in Switzerland, Simulated Patients (SP) are employed to train communication skills. After a Simulated Clinical Encounter (SCE) the SP directly offers oral feedback to the students.
May & Fisher (2007) together developed the (QSF), which assesses the immediate oral SP feedback after an encounter.
Measuring the quality of SP feedback requires validated and reliable instruments. In order to improve the evaluation of SP feedback, the Quality of SP Feedback Form (QSF) was selected as an instrument to assess the SP's individual oral feedback to the student.
The purpose of this study was to assess the content validity of the QSF and its reliability. With the friendly permission of May & Fisher we could validate the QSF Instrument at our Institution.

### Methods:

Since the QSF existed in English only, forward-backward translation was completed at the beginning of the study.

### Content Validity:

All 18 items of the QSF were deployed to 25 medical and nursing educators in German speaking countries. The experts were invited to rank each item on a four point Likert-type scale, from unimportant to important The tool Survey Monkey was used to develop an online survey to be deployed via internet.

### Test/retest:

To obtain a measure of generalizability, it is crucial to estimate variance components for all sources of variation, including higher order interactions.
6 SCEs (Simulated Clinical Encounters) recorded on CDs were rated by 10 judges 2 times on 18 criteria (items), so that a G-study with the fully crossed facets of items (18), judges (10), Cds (6), and times (2) was possible. The judges rated on a scale of 1 (satisfactory) to 5 (non satisfactory). Over all a total of 120 ratings were obtained.

### Results:

Content Validity: The homogeneity of the scale for the raters, expressed as Cronbach's _, was, _=0.77. An encouraging internal consistency was obtained. For a generalizability analysis using GENOVA we regarded the facets of judges, times, and CDs as random and the facet of items as fixed. Generalizability coefficients, estimated from these variance components, were reassuringly high.

### Conclusion:

The quality of the feedback needs to be measured adequately. The QSF has been found to assess oral SP feedback in a valid and reliable way.

**Tables and Figures**

**Table 1:** ***Mean / Standard deviation***

| | N | Mean | Std. Deviation |
|---|---|---|---|
| 1 SP: *So, what do you think it went?* | 16 | 1.81 | 1.167 |
| 2 SP: *So, what are some things you think you did well?* | 16 | 2.13 | 1.204 |
| 3 SP: *Is there anything you would do or say differently, if you could do this again?* | 16 | 2.19 | 1.047 |
| 4 Gave student adequate time to answer questions before continuing | 16 | 2.19 | 1.047 |
| 5 SP first gave positive Feedback | 16 | 1.94 | 1.124 |
| 6 SP`s positive feedback referred to specific changeable behaviours | 16 | 1.75 | 1.183 |
| 7 SP gave feedback from patient`s perspective | 16 | 2.56 | .964 |
| 8 SP`s negative feedback referred to specific changeable behaviours (feedback not destructive) | 16 | 2.56 | .964 |
| 9 SP limited the constructive feedback to 2 or fewer points | 16 | 1.69 | 1.078 |
| 10 SP gave constructive feedback from patient`s perpective | 16 | 2.56 | .964 |
| 11 SP stopped feedback and acknowledged students`feelings | 16 | 1.62 | 1.147 |
| 12 SP confirmed the feelings with student | 16 | 1.44 | 1.315 |
| 13 SP reassured student about purpuse of feedback | 16 | 1.94 | 1.124 |
| 14 SP finished feedback on a positive note | 16 | 1.56 | 1.031 |
| 15 SP asked student to summarize feedback given | 16 | 1.81 | 1.276 |
| 16 The SP ensured that the student understood what she (the student) needed to work on | 16 | 1.63 | 1.310 |
| 17 SP continued to ask student if she had questions until student said "no" | 16 | 1.75 | 1.183 |
| 18 SP thanked the student | 16 | 1.44 | 1.153 |

**Table 2 Internal consistency**

| | | |
|---|---|---|
| 3 important | 138 | 54.8% |
| 2 | 15 | 6.0% |
| 1 | 79 | 31.3% |
| 0 unimportant | 20 | 7.9% |

**Table 3: Correlation with total score**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|
| 1 SP: *So, what do you think it went?* | 32.75 | 137.133 | .469 | .894 |
| 2 SP: *So, what are some things you think you did well?* | 32.44 | 134.796 | .539 | .892 |
| 3 SP: *Is there anything you would do or say differently, if you could do this again?* | 32.38 | 131.583 | .777 | .885 |
| 4 Gave student adequate time to answer questions before continuing | 32.38 | 130.650 | .818 | .884 |
| 5 SP first gave positive Feedback | 32.62 | 142.250 | .292 | .900 |
| 6 SP`s positive feedback referred to specific changeable behaviours | 32.81 | 130.429 | .722 | .886 |
| 7 SP gave feedback from patient`s perspective | 32.00 | 135.733 | .653 | .889 |
| 8 SP`s negative feedback referred to specific changeable behaviours (feedback not destructive) | 32.00 | 136.800 | .603 | .891 |
| 9 SP limited the constructive feedback to 2 or fewer points | 32.88 | 136.783 | .531 | .892 |
| 10 SP gave constructive feedback from patient`s perpective | 32.00 | 135.733 | .653 | .889 |
| 11 SP stopped feedback and acknowledged students`feelings | 32.94 | 136.996 | .485 | .894 |
| 12 SP confirmed the feelings with student | 33.12 | 132.117 | .578 | .891 |
| 13 SP reassured student about purpose of feedback | 32.62 | 131.850 | .706 | .887 |
| 14 SP finished feedback on a positive note | 33.00 | 135.467 | .617 | .890 |
| 15 SP asked student to summarize feedback given | 32.75 | 136.733 | .434 | .896 |
| 16 The SP ensured that the student understood what she (the student) needed to work on | 32.94 | 134.862 | .485 | .894 |
| 17 SP continued to ask student if she had questions until student said “no | 32.81 | 136.429 | .488 | .894 |
| 18 SP thanked the student | 33.12 | 147.983 | .072 | .906 |

**Table 4 Analysis of Variance (Type III)**

| Source not CD related | SS (sums of squares) | df (degree of freedom) | Mean of squares | Variance Component |
|---|---|---|---|---|
| Item | 654.577 | 17 | 38.505 | .519 |
| Time | 11.695 | 1 | 11.695 | .018 |
| Rater | 151.491 | 9 | 16.832 | .109 |
| Item*Time | 14.880 | 17 | 0.875 | -008 |
| Item*Rater | 242.642 | 153 | 1.586 | .038 |
| Time*Rater | 44.879 | 9 | 4.987 | .075 |
| Item*Time*Rater | 130.599 | 149 | 0.877 | .005 |

| Source CD related | SS (sums of squares) | df (degree of freedom) | Mean of squares | Variance Component |
|---|---|---|---|---|
| CD | 33.168 | 2 | 16.584 | .027 |
| CD*Item | 199.138 | 34 | 5.857 | .221 |
| CD*Time | 0.774 | 2 | 0.387 | -.008 |
| CD*Rater | 49.506 | 18 | 2.750 | .027 |
| CD*Item*Time | 36.329 | 34 | 1.068 | .023 |
| CD*Item*Rater | 400.791 | 293 | 1.368 | .261 |
| CD*Time*Rater | 26.729 | 18 | 1.485 | .038 |
| Error + CD*Item*Time*Rater | 235.594 | 273 | 0.863 | .863 |

**Figure 1: Universe score variance to observed**

$$\frac{.027}{.027 + (.221/18) + (-.008/2) + (.027/10) + (.023/(2*18)) + (.261/(18*10)) + (.038/(2*10)) + (.863/(2*10*18))} = \frac{.027}{.0444} = .61$$

**Figure 2: Generalize to a universe of raters and times**

$$\frac{.027 + (.206/18)}{.027 + (.221/18) + (-.008/2) + (.027/10) + (.023/(2*18)) + (.261/(18*10)) + (.038/(2*10)) + (.863/(2*10*18))} = \frac{.0393}{.0444} = .88$$

**Quality of SP Feedback Form (QSF)**

| | | | |
|---|---|---|---|
| | **SP asked Student to reflect** | | |
| 1. | SP: *So, what do you think it went?* | ☐ 1 | |
| 2. | SP: *So, what are some things you think you did well?* | ☐ 1 | |
| 3. | SP: *Is there anything you would do or say differently, if you could do this again?* | ☐ 1 | |
| 4 | Gave student adequate time to answer questions before continuing | ☐ 1 | |
| | **SP gave positive Feedback** | | |
| 5 | SP first gave positive Feedback | ☐ 1 | |
| 6 | SP`s positive feedback referred to specific changeable behaviours (Check if positive feedback **MOSTLY** specific-some generalisation ok) | ☐ 1 | |
| 7 | SP gave feedback from patient`s perspective | ☐ 1 | |
| | **SP gave constructive feedback** | | |
| 8 | SP`s negative feedback referred to specific changeable behaviours (feedback not destructive) | ☐ 1 | |
| 9 | SP limited the constructive feedback to 2 or fewer points | ☐ 1 | |
| 10 | SP gave constructive feedback from patient`s perpective | ☐ 1 | |
| | **SP showed empathy foe distressed student (if student not distressed go to question # 14)** | | |
| 11 | SP stopped feedback and acknowledged students`feelings | ☐ 1 | |
| | SP: *I am feeling that you might be upset by this feedback* | | |
| 12 | SP confirmed the feelings with student | ☐ 1 | |
| | SP: *Are you feeling (sad, angry, upset) or is this true?* | | |
| 13 | SP reassured student about purpose of feedback | ☐ 1 | |
| | SP: *Giving you feedback is our way to help you . . .* | | |
| 14 | If student didn`t appear distressed by feedback, check box at right and go to question # 15 | ☐ 3 | |
| | **SP finished with positive feedback** | | |
| 15 (14) | SP finished feedback on a positive note | ☐ 2 | |
| | **SP verified student`s learning** | | |
| 16 (15) | SP asked student to summarize feedback given<br>SP: *What have you learned from this feedback?* | ☐ 1 | |
| 17 (16) | The SP ensured that the student understood what she (the student) needed to work on | ☐ 2 | |
| | **At end of session, SP asked student is she had other quesions** | | |
| 18 (17) | SP continued to ask student if she had questions until student said “no”<br>SP: *Do you have any other questions or comments? Anything else you like to ask?* | ☐ 1 | |
| 19 (18) | SP thanked the student<br>SP: *Thank you for your effort today. I feel privileged to be part of your education* | ☐ 1 | |
| | **Total Score** | | |

Win May, Dixie Fisher 2006

**O 83**

**Decision making in simulation and reflective accounts on performance**

**Author:**
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**Co-authors:**
**Prof. Ruth Endacott Dr Simon Cooper;, Leigh Kinsman; Tracy McConnell-Henry**

**Background:**
The failure to recognise and respond to patients who demonstrate signs of clinical deterioration has been well researched but we do not know why this problem persists (McGuillan et al, 1998, NPSA, 2007).

**Aim:**
To model decision making on shock types by final year nursing students in a simulation scenario.

**Methods:**
Final year nursing students (n =51) participated in a clinical laboratory, mannequin based scenario simulating rapid deterioration into hypovolaemic, and later septic shock. A brief 'patient' history was presented to the students before entering the room. Thereafter they were asked to respond to the cues from the mannequin. Each session (lasting 10 minutes) was videoed and after the simulation the students were invited to watch and comment on their performance.

**Results:**
The majority of students' assessments were framed by the presenting symptoms and worked to assimilate or eliminate information fixated on these findings. Alarms and plummeting physiological findings did trigger some students to shift their course of decision making to recognise and respond to the shock state. The majority of students appeared to aggregate single findings to stimulate a response e.g. dropping oxygen saturations equates to oxygen mask being applied to the patient. Fewer seemed able or confident to aggregate more than three discrete elements of the physiological change.

**Conclusion**:
Where students were confident to aggregate data they were more likely to call the medical emergency team (MET). This indicates that students need to be taught inductive and comparative principles to build a clinical picture rather than depend on eliminating, sometimes false negative results from an initial patient history. Confirmation from a colleague to call for assistance were evident indicating that students may need more training to confidently deal with contradictory evidence to indicate a shifting diagnosis that requires the intervention of a MET.

**References:**
McGuillan P, Pilkington S, Allan A, Taylor B, Short A, Morgan G, Neilsen M, Barret D, Smith G (1998) Confidential Inquiry into quality of care before admission to intensive care. British Medical Journal 316: 1853-1858.

National Patient Safety Agency (NPSA, 2007) Safe Care for the acutely ill patient`: learning from serious incidents PSO/5 London: National Patient Saftey Agency www.npsa.nhs.uk (accessed 26/07/07).

**O 84**

**Can research strategies informed by social learning theory enhance the clinical skills movement?**

**Dale Sheehan**

This presentation is a response to a call in the literature for medical and interprofessional educational research that is grounded in theory and for researchers to consider social learning theories when investigating learning undertaken within clinical environments and therefore clinical teams. While some criticism identifies an absence of studies informed by theories, others suggest that it is not an absence of theory that is the issue of concern, but that theories focusing on the individual have been privileged for ideological reasons. (Bleakly, 2006). This focus on “individualistic” approaches has meant less consideration has been given to learning in healthcare teams or to knowledge that is social, collaborative and team based.

This paper tests the potential of social learning theory by reconceptualising a model of learning in clinical environments (Sheehan, Wilkinson, Billett, 2005) within a community of practice framework. (Lave & Wenger 1991). The premise is that this framework is appropriate for clinical skills research as it recognises learning as occurring within team settings and involving collaborations with, and co-construction of knowledge by novices and experts. The concept of development of professional identity through peripheral participation within a practice community appears applicable for examining the social learning opportunities available to beginning practitioners as they become members of a professional body.

Beginning practitioners are conceptualised as being located within and participating in two connected communities of practice. One community (or team) is the immediate patient focused community, the community of clinical practice (after Jaye & Egan, 2007) which is the team (including the patient’s family) who come together to provide care for that patient. The other community is ward, unit or service based and is the ongoing community of practitioners who are linked in the ongoing provision of care and is situated in a complex multi disciplinary workplace.

**References:**

Bleakley, A. (2006). Broadening conceptions of learning in medical education: The message from team working. Medical Education, 40, 150–157.

Jaye, C., & Egan, T. (2006). Communities of practice: Implications for health professional education. Focus on Health Professional Education, 8(2), 1–9.

Lave J., & Wenger, E. (1991). Situated learning: Legitimate peripheral participation. Cambridge: Cambridge University Press.

Sheehan, D., Wilkinson, T. J, & Billett, S. (2005). Interns’ participation and learning in clinical environments in a New Zealand hospital. Academic Medicine, 80(3), 302–308.

**O 85**

**Becoming a practitioner – what are the professional skills required?**

**Dale Sheehan, Emily Bowie, Tim Wilkinson**

**Research Goals:**
This study explored the tacit knowledge that junior doctors have about the skills required to perform successfully as an intern and achieve registration with the Medical Council of New Zealand. We sought to identify the curriculum of the workplace (after Billet, 1994, 2001) and discover what successful interns (post-graduation Year 1) "really do" in the day to day maintenance of their role, what they learn and what skills and competencies determine successful performance.

**Background and rationale:**
Currently the Medical Council of New Zealand is consulting on the competencies required of a medical practitioner. Within medicine, there have been no studies to identify what is "actually" learned in the intern years or to define the role that junior doctors undertake in their probationary year. This proposal sits within his practical knowledge traditions which emphasis the idea of practice as a purposeful, variable engagement with the world.

**Methods:**
The target group for data collection in this study was House Officers entering their 2nd postgraduate year as they have the most recent experience of the role and work closely with current interns across three New Zealand hospitals (2 metropolitan and 1 regional)

This qualitative study utilised focus groups and participants where followed up by e-mail or phone interview by the focus group facilitator 2-3 weeks later. Data was collected between November 2008 and January 2009. Focus groups where facilitated by a 3rd year House Officer. At the conclusion of the focus group meeting participants where asked to be self aware over the next 2 weeks and reflect on their roles, the performance of their junior doctor, the skills or lack of skills they notice in more junior staff and to pick their preferred method of contact for the follow-up interview.

**Results:**
This paper will present the results of this study.

**References:**
Billett, S. (1994) Situated Learning - A Workplace Experience. Australian Journal of Adult and Community Education, 34 (2), 112 – 130

Billet, S. (2001) Learning in the Workplace. Strategies for Effective Practice. Allen & Unwin.

**O 86**

**What are the views and preferences of allied health professionals on interprofessional supervision?**

**Dale Sheehan, Linda Robertson, Tika Ormond**

**Background**:
In 2004/2005 we undertook research looking at the language used and patterns of communication in multi-disciplinary and inter-professional teams. (Sheehan, Robertson, Ormond, 2007) One of the themes that emerged from this study was that health professions working in a team (such as these rehabilitation teams) are also members of a particular profession so have these professional team alliances as well and this creates a dual membership. This issue of allegiance raises interesting questions around who provides supervision. Who supervises you when you work outside your registered profession and part of an interprofessional team? Should it be the professional expert or the rehabilitation or service delivery specialist with generic skills who provides supervision?

**Aim:**
The aim of this project was to survey registered allied health professions in New Zealand to gain information about their views and preferences relating to interprofessional supervision.

**Method:**
Online questionnaire survey was sent to 3,000 registered health professionals from Occupational therapy, Speech language therapy, Physiotherapy and Medical Radiation Technology.

**Results:**
Data from 550 responses is currently being analysed and will be presented and discussed.

**Opportunity:**
There may be conferences members interested in replicating this study.

**References:**
Sheehan, D, Robertson, L., Ormond, T. (2007) Comparison of language used and patterns of communication in interprofessional and multidisciplinary teams. Journal of Interprofessional Care. 21 (1) 17-30

**O 87**

## Peer assisted learning in clinical skills lab: the students' perspective

**Emmanouil Smyrnakis, Stella-Lida Papadopoulou, Evangelia Tsiga, Olga Nikitidou, Areti Triantafylou, Aliki Xohelli, Gesthimani Mintziori, Alexis Benos, Nicholas Dombros**
**Clinical Skills Lab**
**Medical School, Aristotle University of Thessaloniki, Greece**

**Background:**
Well-constructed and well-supported Peer Assisted Learning (PAL) schemes have been shown to be successful in a broad range of educational settings[1]. PAL allows students to help each other learn effectively in an informal environment[2].

**Aim:**
The aim of this study is the evaluation of a PAL scheme at the Clinical Skills Lab (CSL) of the Aristotle University of Thessaloniki (AUTH) Medical School.

**Population - Method:**
Training in the CSL of AUTH Medical School is provided in small groups. Aiming to increase the education quality, we recruit teaching assistants from a pool of students previously trained at the CSL. After the clinical skills demonstration during each lesson, the students were divided in 2 groups, supervised by the instructor and the teaching assistant respectively. In addition, the assistants supervised their colleagues during the review courses.
Upon completion of the courses, an anonymous questionnaire was distributed to the students, asking them to rank a number of statements according to the level of agreement.

**Results:**
According to the 85.7% of the students, the teaching assistants mastered their training subject and participated actively during the lesson. Furthermore, 87.8% of the students disagree with the opinion that the presence of assistants creates a competitive rather than co-operative atmosphere.
The 65.3% of the students believe that the presence of assistants ensures better conditions of supervision during the course, while 14.3% disagree.
The self-study hours (review courses) can be supervised by the assistants, according to 55.1% of the students; however, 26.5% of them disagree. Finally, 54.3% of the students believe that PAL schemes should be also applied to other courses, while 10.9% disagree.

**Conclusions:**
The presence of teaching assistants improves the training conditions in the Clinical Skills Lab. Students are positive towards the involvement of assistants in their education. The conclusions of this study support the involvement of student PAL schemes in other undergraduate courses of the Medical School.

**Endnotes:**
[1] Donelan M, Kay P. Supplemental Instruction: Students Helping Students' Learning. Law Teach 1998;32.
[2] Wadoodi A, Crosby J. Twelve tips for peer-assisted learning: a classic concept revisited. Med Teach 2002; 24(3):241–4.

## O 88

### Use of the "kee-pad" response system for clinical knowledge self review in an undergraduate MBBS psychological medicine program

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In Year 4 of their undergraduate degree, Monash University MBBS students study psychological medicine in conjunction with their general practice rotation. This requires the acquisition of a vast new core knowledge in psychiatry, and simultaneous knowledge translation into clinical practice. Whilst the program provides clear didactic, tutorial, and clinical placement experiences, observation of different learning styles across and within semesters suggested that some students were consolidating new theory more readily than others, and hence were performing more competently in clinical scenarios (real or simulated). This project therefore sought to encourage students to better consolidate new theory early in the semester, so that appropriate developments in their clinical skills could occur.

This presentation will describe and demonstrate the Kee Pad® audience-response system as a means for students to assess their understanding and consolidation of recently taught clinical information. "Kee" stands for "keep education engaging" and reflects the fact that this medium is an individually-based audience response system which enables a high level of interactivity in the classroom. The Kee Pad® software links to PowerPoint, and enables each individual student to "lock in" via a remote control, his or her answer to a multiple-choice question. Once all responses are polled, a graph summarising responses is displayed. This enables the teacher to see the range of responses (in itself a useful measure of teaching effectiveness) and then guide discussion around the pros and cons of each foil. Evaluation data will be presented which shows how favourably students have received this innovation in the clinical education program at the Bendigo RCS. While it is too soon to gauge the impact of this approach on performance in Objective Structured Clinical Examinations (OSCEs), the first group of students to be exposed to this teaching approach performed an average of 10% better than their cohort in OSCEs.

## O 89

### Scoping the curricula for longitudinal undergraduate medical placements in rural and regional clinical practice settings

**Professor Geoff Solarsh, Chris Rolton and Natalie Radomski**
**Bendigo Regional Clinical School**
**Monash University School of Rural Health**

**Background:**
Core student placements in large metropolitan teaching hospitals have traditionally been divided into independently governed, discipline-specific clinical rotations. These experiences are often characterised by opportunistic patient interactions and poorly coordinated learning objectives[1]. Recent shifts in medical education to incorporate longitudinal rotations in community-based health service settings has created new opportunities to devise customised clinical programs that capitalise on 'local-level' health systems, services and teaching expertise.

**Method:**
This paper reports on evaluative data generated from a curriculum analysis exercise conducted with more than 35 general medical practitioners and 10 specialist clinicians across five rural and regional clinical education hubs in North West Victoria, Australia. A key aim was to define the core knowledge, clinical skills and patient interactions that medical students would be expected to achieve for the disciplines of Women's and Children's Health, Psychological Medicine and General Practice. We were particularly interested in identifying elements of the curricula that could 'best' be learned and taught in rural and regional settings. Central to our inquiry was the belief that students' clinical rotations needed to be aligned to the 'scope of practice' of our clinical educators and to the local-level health systems. Data was collected over a 12 month period using an innovative mapping tool via a series of face-to-face meetings with the participants. Data was analysed to identify key points of intersection, overlap and divergence around 'what could reasonably learned and taught' by general and specialist practitioners in the rural and regional settings which together form the key program hubs.

**Results:**
Findings to date suggest there are many curriculum components that have traditionally

been taught in acute health settings that could readily be facilitated by 'generalists' with a broad scope of rural practice and with the responsibility for comprehensive and long term care of their patient population. The curriculum mapping methodology appears to offer a useful tool for analysing the health-care systems operating across our region. Our findings have also informed development of an integrated, year-long clinical placement model within the Monash MBBS course.

**References:**

[1]Hirsh DA, Ogur B, Thibault GE, Cox M. "Continuity'as an organising principle for clinical education reform. N Engl J Med 2007; 356(8): 858-866

**O 90**

**Teaching communication skills through a life narrative: the Volunteer Interviewee Program (VIP) at Gippsland Medical School**

**Somers G, Alen S & Nestel D**

**Abstract:**
Communication skills at Gippsland Medical School (GMS), Monash University, are learned and practiced through a range of educational methods with experiential learning the core component. In first year, students spend one day weekly learning clinical skills either on campus in simulated clinical settings, in hospital wards, in general practice or in the Volunteer Interview Program (VIP).

In order to develop a patient-centred approach to communicating with older people, our 2008 cohort interviewed at least one nursing home resident. Almost all of these were not typical of older people in the community and many were either not able to give informed consent and/or their physical or cognitive impairment prevented an optimal interview by these novices.

In an effort to 'de-medicalise' this interaction for our 2009 cohort, we approached local retirement villages. Large numbers of independent-living, active older people who more closely reflected the broader community volunteered. They were keen to support and influence the development of doctors. Educational and administrative support was offered to village staff, and a nurse with a PhD in geriatric care was appointed as the VIP coordinator.

Students work in pairs, and interview two patients, interviewing and observing in turn. The task is not to gain a medical history, but to use 'patient' centred communication skills to probe the interviewee's life narrative. Students prepare 'dot points' of the interview, present the narrative to the students group and coordinator and prepare a 300 word reflection on the exercise, which they may choose to share with us.

Early results suggest that students value this experience equal to the hospital placement, that it is possible to develop communication skills while eliciting a life narrative. Staff at the villages reported feeling supported and engaged. The volunteer base has grown by word of mouth. This paper will present the early feedback from students, staff and interviewees.

**O 91**

**Involving patients in undergraduate medical education**

**Patsy Stark, Martin Hague**

**Background:**
There are three key drivers for involving patients in the education of healthcare students. Firstly, in the UK, like many countries, rapid hospital patient throughput, reduced case mix and transfer of activity from in-patient to out-patient and from hospital community has reduced the time available, the frequency and the richness of clinical encounters.

Secondly, outcome focussed curricula require all students to cover the core clinical curriculum. Opportunism is no longer appropriate.

Thirdly in the UK, the NHS is committed to patient involvement in care[1, 2]. This can and should be extrapolated to involvement in education and training.

**Outline of the work:**
The University of Sheffield's Patients as Educators Programme is an example of how the aims to increase patient involvement and to ensure effective curriculum delivery can be harmonised.

The programme started in 2004, built on a small existing group of simulated patients. Currently there are over 630 members who work with students in all years to help them develop effective, patient centred consultation and clinical skills.

Establishing a successful programme is predicated on a number of factors:

- Alignment of activities with the curriculum and assessment strategy
- Effective recruitment and training
- On-going support and increasing involvement
- Maintaining confidentiality and working ethically
- Regular evaluation by students and patients

**Evaluation:**
The students and patients evaluate their experiences. The students complete an online evaluation and the patients complete a paper based questionnaire. The students overwhelmingly value this type of patient involvement, especially the authenticity of the experience. The patients become involved with the programme for a number of reasons. Usually it is to give something back and to help train the next generation but for many it is more than that. They gain satisfaction and esteem by being part of a dynamic team.

**References**:
1. Picker Europe: http://www.pickereurope.org/index.php (accessed 15. 10. 08)

2. The NHS centre for Involvement: http://www.nhscentreforinvolvement.nhs.uk/index.cfm?content=1&menu=1 (accesses 23.10.08)

## O 92

### Fact and fiction in emergency care clinical skills exposure: revelations from an electronic clinical learning registry

**Stein C**

**Aim:**
To assess opportunities that university-level emergency care students had to practice clinical skills in a real-world environment. Clinical skills performed by students related to airway management, resuscitation from out-of-hospital cardiac arrest (OHCA) and paediatric emergencies occurring between 2001 and 2007 were assessed.

**Methods:**
Out-of-hospital emergency patient care records in an electronic clinical learning registry were extracted and descriptively analysed in terms of student exposure to OHCA and paediatric emergency cases. Opportunities for students to perform clinical skills related to OHCA resuscitation, paediatric emergency care and airway management were described.

**Results:**
Exposure to clinical skills was generally found to be lower than expected. In the first and second years of study only 50% of students had any exposure to OHCA cases while in third year roughly 75% had any exposure. Less than 50% of students in all academic years of study had opportunities to practice basic resuscitation-related clinical skills. Experience with clinical skills related to paediatric OHCA was particularly limited for all students. For all paediatric emergency cases, exposure differed by age group. Across all three academic years of study 70% of students were exposed to emergencies occurring in children, 44% in infants and 31% in neonates. Very few students had opportunities to practice invasive skills on paediatric patients and roughly 50% of students had opportunities to administer drugs to paediatric patients. Roughly 60% of students had opportunities to practice basic airway management-related skills in adults, 74% had opportunities to orally intubate adult patients and 67% had opportunities to perform drug-assisted oral intubation. Exposure to these skills decreased dramatically in paediatric patients.

**Conclusion:**
Students generally had few opportunities to practice invasive and high-risk skills prior to qualification. Although simulation may play a role in practice of these skills, lack of real-world experience may have implications for patient safety immediately post-qualification.

## O 93

### Reduction of CVC related bloodstream infections in ICU

**Stewart-Wynne, E; Ng, B; Groves, C.**

Following the introduction of a Safety and Quality Investment in Reform (SQuIRe) Clinical Practice Improvement (CPI) Program (1) in January 2007 the catheter related blood stream infection rates (CRBSI) from central venous catheters (CVC) inserted in the Intensive Care Unit (ICU) fell to 0% in the first quarter of 2008. This was achieved by implementing best practice guidelines for the insertion and management of CVC's. A check list was used which included 100% compliance with hand hygiene at insertion; correct skin preparation; maximal barrier precautions at insertion; optimal site selection (subclavian is first choice) and daily review of the continuing need for the CVC line for treatment. Nursing staff observing the procedure were empowered to halt the procedure if the check list was not being followed.
Check lists completed by the doctor or an assistant were used to audit compliance. Compliance with all 5 items increased from 60% in the last nine months of 2007 to 86% in the first nine months of 2008.

**Strategies to achieve the desired outcome included:**
Prompt feedback of CRBSI rates and compliance rates to clinicians took place. A PowerPoint presentation of correct CVC insertion technique was developed and used prior to training.
CVC training mannequins were purchased and training sessions were undertaken for junior medical staff. An Intensive Care consultant undertook teaching of the technique and supervision of CVC insertions. A medical practice standard of CVC insertion was prepared.
The SQuIRe Senior Project Officer maintained the raised profile of the CVC program in ICU.
The SQuIRe Hand Hygiene Coordinator implemented a hand hygiene program in 2008 which complimented the CVC program in ICU.
A CVC draping pack was developed to standardise equipment used for the procedure.

**Summary:**
Full details of the checklist, the medical practice standard and the Power Point educational tool will be presented. A short section of the CVC training video, with trainer and manikin will be shown. Details of Compliance and infection rates for January to June 2009 will be given.

**Reference 1:**
http://www.safetyandquality.health.wa.gov.au/squire/guidebooks.cfm December 2008.

**O 94**

**Teaching with the brain in mind**

**Michelle Toohey**

This paper presents a clinical teaching perspective of an Australian rural NSW Intensive Care Unit (ICU), using David Rock's four pillars of NeuroLeadership (Rock, 2008). Each pillar, whilst distinct, does overlap and has been used to evaluate the clinical education practices in the above institution. Underpinning this approach is neuroplasticity – the science behind 'the brain that changes itself (Doidge, 2007; Schwartz, 2008).

**The four pillars are:**

1. Making decisions and solving problems – latest research of the brain
2. Staying cool under pressure - emotional regulation in intense clinical situations;
3. Getting on with others – science of personal connection, conscious/unconscious processes in decision-making;
4. Driving change - a solution focused linear problem-solving model for managing change.

Attention, mindfulness, repetition, motivation, experiential learning and a safe learning environment are all educational approaches, stemming form the four pillars, that have been used to analyse the educational practices in ICU.

**Attention** – density and quality of our focus stabilizes and strengthen brain circuitry (and subsequent brain development) (Schwartz, 2008). Attention is very in ICU but can be influenced by many simultaneous demands.

**Mindfulness** – form of meditation/awareness that helps to minimize the impact of negative or anxiety-provoking thoughts and attitudes (Hassed, 2008, p. 52-3), with improvements in memory, learning and attention (Hassed, 2008, p. 57). Mindfulness is currently not used in ICU.

**Repetition** – series of similar behaviours that stimulate neurons, neurotransmitters and receptors (Doidge, 2007, p. 47, 68) resulting in greater synaptic strength (Gordon, 2008). Repetition is extensively practiced in ICU.

**Motivation** – degree of interest in an activity (Doidge, 2007, p. 68-69). Will influence neurotransmitter release, brain blood flow and memory formation (Doidge, 2007, p. 43, 47). Motivation levels in ICU are generally high although competing external pressures can be significant.

**Experimental learning** – gaining of information through initiative, insight and discovery (Gordon, 2008). This is widely practiced in ICU – an autonomous environment where decision making and problem-solving skills are encouraged.

**Safe learning environment** - essential for the brain to perform at its best – if threatened can impair motivation, concentration and memory formation (Hassed, 2008, p. 41). This environment is fostered in ICU however under pressure may not always be practiced.

The teaching program, with its underpinning philosophy will be presented, along with research strategies to assess the effectiveness of this approach.

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**O 95**

**Performance based assessment of simulated challenging acute episodes; rubric design and validation**

**Ms Nuala Walshe, Clinical Skills Manager, School of Nursing & Midwifery, University College Cork, Ireland. (Presenting author)**
**Ms Angela Flynn, Ms Siobhan Murphy, Ms Irene Hartigan UCC**

**Introduction:**
The assessment of competency, using discipline specific criteria, detailed within descriptive rubrics, is gaining popularity at all levels (Dunbar et al, 2006). Rubrics allow the assessment of individual competencies and are a means of rating students holistically based on an overall impression (Pomplum et al, 1998). However, discrimination of levels of performances can be difficult using this type of instrument (Miller, 2005).

**The objectives of this pilot study were to:**
- Design a rubric, incorporating descriptors of practice, to assess the competency of 4th year pre-registration nurses in the nursing management of challenging acute episodes in the simulated environment
- To test the reliability and validity of the rubric

**Methods:**
A descriptive exploratory design was used. Focus groups of clinicians were formed to identify predominant challenging episodes and associated descriptors of competent practice. Themes relating to descriptors of practice were used to develop the module content and the proposed assessment rubric. A descriptor for each domain of competency was developed across the grades. These descriptors were used to award a grade for the final simulation of a 4th year undergraduate nursing module. 32 students completed the summative 20-minute assessment which involved the management of a postoperative patient with either an acute respiratory episode, or an acute hypovolaemic episode. Each student was directly observed and graded by a faculty member and all simulations were recorded. 50% of these recordings were then blindly reviewed and graded.

**Results:**
There was excellent agreement with most scores, indicating a high degree of reliability. The median width of variation between the initial score and the blind score was 4.25. Content validity was achieved through expert clinical review of rubric and review and grading of recorded simulations.

**Conclusions:**
This pilot study supports the use of performance-based descriptors to reliably assess competency in the simulated environment. In addition, the award of a quantifiable grade ensures that simulation assessments can be objectively used in summative university-based examinations.

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**O 96**

**Development of knowledge skills and attitudes in global heath issues in health professional students**

**Gillian Webb**

**Aim:**
To develop knowledge skills and attitudes in physiotherapy and other health professional students on topics regarding issues of health in a global context

**Discussion:**
In many health professional courses student are given the opportunity to undertake an elective in a health facility in a developing country. At the School of Physiotherapy at the University of Melbourne students have been undertaking a four week global elective for the past 14 years. This purpose of the elective is for students to develop an understanding of the social, cultural and political context of health care management and different health systems. It is expected that they will develop skills in working in different environments and in development of physiotherapy programs in a variety of contexts. This program is being reinforced with the development of online learning modules in a consortium of international universities. These modules are focused around the United Nations Millenium Goals and are developed as inter-professional learning modules. Enabling students to gain knowledge, skills and attitudes in this area is important, it not only equips students to be able to work more effectively in a global context but also ensures that students have a better understanding of the complex cultural communities in which they work locally.

**Outcomes:**
This presentation will describe the contexts in which the students have undertaken their elective and some of the outcomes that have been achieved.

**O 97**

**Community clinical educators: taking the role of the standardised patient further**

**Associate Professor Gillian Webb, Dr Louisa Remedios**

**Aims:**
To trial a new approach to support traditional methods of clinical education using community members to teach physical examination skills and provide feedback to students on their performance from a patient's perspective. The experiences and responses of medical and physiotherapy students and Community Clinical Educators (CCE's) to these interactions are being evaluated.

**Background:**
The Schools of Medicine and Physiotherapy at The University of Melbourne, Australia, have developed this project as part of a response to decreasing patient availability, increasing student numbers and competing demands on clinicians, which has impacted on students clinical learning. The program aims to ensure that each student receives timely, individual, specific and explicit feedback on his/her clinical performance from trained CCE's. There is a wealth of research evidence that standardised patients (SP's) s can create highly realistic clinical encounters for students. This program extends the use of SP's from a predominately passive role to that of an active educator.

**Methods:**
The CCE program involves training lay people to provide feedback on students' communication and physical examination skills. Two student tutorials have been developed in the areas of musculoskeletal and cardiorespiratory practice, which cover history taking and physical examination. Learning modules have been developed for the CCE's, which enable them to provide realistic patient feedback to the students on both their communication skills and their physical examinations skills. Assessment tools and questionnaires were developed as the outcome measures.

**Results:**
The data is currently being analysed. Early results indicate that both students and CCEs' report positive experiences and responses to this program. CCE's have reported confidence in their role as educators and value their contribution to the students' learning.

**Conclusion:**
This program provides an additional source

of clinical education, which emphasises the patient's voice and provides a safe learning environment for novice medical and physiotherapy students.

**O 98**

**Interprofessional peer formative assessment: learning from each other**

**Prof Olwyn Westwood, Dr Annie Cushing, Ms Angela Hall**

A formative OSCE setting was used as learning aid to facilitate feedback and learning of clinical communication skills and to develop a clearer understanding of the relevance of OSCE marking criteria through discussions and shared experience.

Those who took part were medical and nursing students on the inter-professional graduate entry programmes from Barts & The London School of Medicine and Dentistry, Queen Mary, University of London, and from the City University School of Nursing and Midwifery.

It included simulated clinical practice with actors as patients and with the students rotating through the roles of candidate, examiner and observer. Students initially discussed the nature of the marking criteria using a constructivist approach (1). Then an OSCE mark sheet was used against which they assessed each other and derived criteria for pass /fail on three OSCE stations. Students also practiced giving constructive feedback (2) with a view to promoting professional behaviours. We discuss the data outcomes from:
(a) the focus group discussions with each of the student groups that explored their perceived value of this approach to their patient assessment skills development.
(b) The assessment evaluation questionnaire completed by students and staff that evaluated the perceived value of this approach (3)

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**O 99**

**Bringing the road to the classroom**

**Michael Williams MEd., FACAP**

Historically the majority of paramedic education within the university setting is delivered in a didactic lecture format, devoid of any contextual relevance. This approach to teaching is less than optimal in creating an engaging meaningful learning experience. Not only is the context removed with this form of teaching but also the learning is a passive participant to the learning experience. Therefore there exists a need for educational tools to supplement clinical teaching and current practical laboratory settings whereby such skills can be demonstrated and practiced without recourse to contact with patients in real-time.

Victoria University has set out to improve the clinical learning experience and critical thinking of its paramedic students by constructing two ambulance pods (SimAmb) within its practical laboratory, identical to the current state of the art Ambulance Victoria operational ambulance.

This paper will present the journey of developing a real ambulance simulated environment by which paramedic students can practice clinical skills, procedures and be engaged in real time scenarios. This simulated environment creates a safe place that promotes the development of critical thinking and problem solving and incorporates debriefing opportunities prior to employment and being in an operational on road “real life” situation. The intention of this project has been to bring together part task training and the acquisition of theory knowledge and apply that in the SimAmb to ensure the student is as road ready as possible. Through this journey clinical skills teaching and learning is now a much more valuable experience for all involved.

**Key Words**:
Critical thinking, simulation, pre hospital care, paramedics

**O 100**

**Response to a patient safety issue - using eLearning to mimic the clinical environment**

**Anya Wood, Carolyn McPhee, Claire Mallette**

In response to a number of critical patient incidents that were caused by errors in the programming of infusion pumps, Accreditation Canada issued a required organizational practice (ROP). This ROP outlined the need for employers to provide ongoing effective training for health care practitioners on all infusion pumps that they use in their clinical practice (Canadian Council on Health Services Accreditation, 2007).

Before Accreditation Canada outlined this new patient safety requirement, infusion pump training was covered in orientation and then in the clinical setting through practice with preceptors. Ongoing education was not offered consistently throughout the organization. Implementing this ROP would prove to be a time consuming requirement for the Educators. There were also concerns that the training, delivered in its current format, would not improve patient safety. In order to respond to the ROP, a group of Educators reviewed the literature and relevant incident reports and worked with instructional designers to develop a yearly assessment for all nursing staff.

This presentation will describe the development of a new innovative eLearning strategy. In order to mimic the clinical setting and clinical practice, AVATARS and interactive pumps were used in the elearning portion of this strategy. Avatars were used to simulate role-play between healthcare professionals and interactive pumps were used to simulate the pumps used for patient care.

This method of providing education should prove to be an effective, efficient method of addressing the ROP and more importantly work to improve patient safety. By using avatars and pumps that simulate clinical situations, we anticipate that learners will be more engaged in their learning and will have better knowledge transfer to their practice. Program evaluation will be described.

**O 101**

**Interdisciplinary collaborations: developing teaching resources to address the communication training needs of international medical graduates**

**R Woodward-Kron[1], C Delany[1], E Flynn[1, 2]**
**[1]University of Melbourne, [2] Postgraduate Medical Council Victoria**

In Australia, international medical graduates (IMGs) play a critical role in addressing workforce shortages in the Australian health care sector (Birrell & Hawthorne 2004). Their ability to deliver safe and effective health care in an unfamiliar cultural setting is intrinsically tied to effective and ethically based communication. Effective clinical communication requires not only a high level of English proficiency, but also sensitivity to how language and culture impact on interactions with patients and with other health professionals, knowledge of local medical culture, and an awareness of ethical obligations. Hospital based medical clinical educators play an important role in providing transition and communication training to IMGs, yet many are ill-equipped to incorporate intercultural communication skills into their workplace training. There is also a dearth of relevant multimedia resources to support their efforts.

This paper reports on the development of multimedia resources for effective clinical communication and ethical practice for IMGs. The project draws on research and methodologies from applied linguistics, second language education, and health ethics (Chur-Hansen & Woodward-Kron 2008; Delany et al 2008) to inform the development of the multimedia and the associated teaching materials. The multimedia comprise voxpops of experienced IMGs talking about their perspectives as well as three challenging communication scenarios. These are open disclosure in a paediatric setting after a mistake has been made, a youth alcohol history taking, and managing a racist patient. The video clips are supported by teaching guidelines underpinned by a model of language in context that seeks to make explicit the linguistic, interpersonal and ethical dimensions and challenges of the scenarios. The paper will highlight how collaboration between disciplines can provide new perspectives, methodologies and research to inform and address the multifaceted challenges of clinical communication teaching and practice.

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**O 102**

## Researching clinical communication for assessment purposes: guidelines for international medical graduate workplace based assessment

**R Woodward-Kron[1], E Flynn[1,2], S Fabri[3], M Stephens[1], R Coates[4], C Elder[1]**
[1]**University of Melbourne**
[2]**Postgraduate Medical Council Victoria**
[3]**Western Hospital, Melbourne**
[4]**Goulburn Valley Health**

Workplace based assessment is currently being implemented by the Australian Medical Council (AMC) for the Standard Pathway registration for International Medical Graduates. The clinical assessment involves several components including Mini CEX and Chart Review. While the assessment focus of these procedures is primarily clinical skills, the Mini CEX and Chart Review require complex language and communication skills. The assessment framework currently lacks criteria for assessing or providing feedback on candidates' spoken medical English and interactional communication skills, despite the centrality of good communication for patient safety.

This project reports on developing tailored clinical communication assessment guidelines and feedback frameworks to be used in conjunction with the Mini CEX and Chart Review. The guidelines were established through video-recorded observations of medical clinical educators (MCEs) modelling the assessment tasks. The communication component was analysed collaboratively by a discourse analyst and medical educator to identify phases of the interaction, the language of reasoning, medical and technical language, and interactional skills. This analysis informed the development of feedback guidelines for evaluating effective communication as part of the assessment tasks. The second phase of the project involved clinical medical educators trialling the feedback guidelines using reflexive video methodology with potential AMC candidates. The discussion of the project outcomes includes identification of the interdisciplinary research and development processes which resulted in the feedback guidelines for communication in the workplace based assessment tasks. It also includes preliminary evaluation of the guidelines by MCEs and AMC candidates.

**P 01**

## Integrating patient safety tools into the early undergraduate clinical skills medical curriculum

**Themes:**
**How can clinical skills education improve patient safety?**

**Ambrose L., Stirling K., Ker JS**

**Background** :
This paper outlines a process of how patient safety tools were integrated into the first year of an undergraduate clinical skills programme using simulation. Reason suggests that safety should be introduced early in training (1). Published research reports students' reactions and alterations in knowledge of patient safety (2) and does not focus on how to embed patient safety and quality improvement in the curricular programme.
The undergraduate medical curriculum at the University of Dundee is based on 12 learning outcomes(3). A pilot study with year one medical students identified problems with the early introduction of patient safety tools into clinical practice. One of these related to the students' limited clinical experience (4).

**Methods:**
Three steps were used to identify and integrate the patient safety tools into the clinical skills programme.

Step 1
An expert focus group was established to develop consensus on which tools to introduce.

Step 2
A lecture series on safe medical practice principles was developed to support the integration of patient safety tools identified into the clinical skills programme.

Step 3
The clinical skills learning outcomes in year one semester one were developed using the framework of the principles of safe practice. The three patient safety tools identified: iSBAR, Ask Me 3, and an early warning system were then used in the simulated exercises to achieve the learning outcomes.

**Evaluation of the programme:**
The introduction of the tools has been evaluated using Kirkpatrick's hierarchy.

**Results:**
Short term effects include increased awareness of patient safety tools amongst students and

teaching staff. Medium term effects suggest evidence of increased collaboration in relation to patient safety with the health care organisation.

**Conclusion:**
The introduction of patient safety tools using simulation early in the curriculum appears to be relevant and acceptable way of introducing quality improvement to those with minimal clinical experience.

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**P 02**

**Clinical skills workshops: the journey for the undergraduate nursing program at Edith Cowan University**

**Melanie Baker RN Dip Nursing BSc (Hons) Community Health Clinical Skills Facilitator Edith Cowan University: Perth, Western Australiamelanie.baker@ecu.edu.au**

The current global nursing climate has implications not only for the existing workforce but for the nurses of the future. The trend of limited quality clinical placements potentially restricts the development of a strong foundation of clinical skills which are, arguably, central to their success. The practicum team in the School of Nursing, Midwifery and Postgraduate Medicine at Edith Cowan University have introduced the innovation of Clinical Skills Workshops (CSW) into nursing practice units within the undergraduate nursing curriculum. This occurred in some part to address the shortage of quality clinical places for undergraduate nursing students in Western Australia.

Additionally, the workshops addressed a call from students for more ‘in-house’ skills practice while, in some part, meeting a demand from industry for skills competent students engaging in clinical practice placements. Commencing in 2005, a CSW program commenced for each practicum unit, a cohort of approximately 1200 students per academic year. Facilitated in purpose built demonstration wards, as preparation for their practicum experience, mandatory attendance of this simulated experience is enforced.

The number of clinical skills incorporated increases as the students’ progress through their training. Skills allocated are stage specific in order to promote the importance of working within the ‘Scope of Nursing Practice’ and are embedded within a scenario to support problem based learning and critical thinking.

To date skills covered have included the measurement and recording of vital signs, aseptic technique, medication administration including intramuscular, sub cutaneous and intravenous injections, female catheterisation, blood transfusion administration, oropharyngeal suctioning and airway management and there cording a 12 lead ECG. While evaluation demonstrated that the workshops met the demand for improved competence and confidence in performing clinical skills, they additionally created the opportunity for assessment of students. A flow on effect from increased supervised and assessed practice time is ultimately improved

patient safety. This poster will re-trace the learning journey experienced by the practicum team from the introduction of the CSW's into the curriculum to the current CSW program.

**P 03**

**International, cooperative telemedicine and skills teaching program**

**Mihály Boros, Andrea Szabó, Miklós Czóbel, József Kaszaki**

The major goal of the Skills Center of the Institute of Surgical Research in Szeged, Hungary, is to introduce basic surgical principles and invasive medical techniques in simulated clinical surroundings to graduate students. The "Pius Brânzeu" Education Center of the University of Timisoara, Romania, has different target groups, but almost the same structure and possibilities: postgraduate specialization courses took priority in this unit. Our jointly organized "HU-RO" project was launched in 2007; it is based on planned, common education development with shared resources. In this "virtual education center" Internet-based communication devices are used to connect the bipolar educational work. After transmission of the theoretical parts of practical courses ("Basic Surgical Skills", "Monitoring Skills", "Advanced Surgical Techniques"), students from Romania attend the hands-on skills training courses in Szeged, Hungary, while the most effective elements are utilized during mutually organized postgraduate specialized and refresher courses ("Microsurgery", and "Magnified Surgery", respectively).

An anonymous, question-based survey with 5-point scales was conducted among the third-year Romanian students (n=31), and first-year surgical residents (n=15) after their completion of the program (response rates were 95% and 98%, respectively). The most important parameters and the ratings (graduate/postgraduate) are as follows: organization: 4.62/4.75; arousing interest: 4.62/4.87; possibility of active participation: 4.87/4.62; quality of lectures: 4.75/4.81; quality of practicals: 4.75/4.75. A majority of the medical students were of the opinion that basic surgical skills should be taught more intensively and frequently; and highlighted the need for separate skills programs in Timisoara.

In conclusion, the HU-RO network strengthens the partnership continuously, provides an exceptional possibility to build interregional intellectual connections, and to utilize the advantages bilaterally. The development of trans-border, practice-based, quality-controlled skills training increases mobility and the intellectual potentials of the region, while the info-communication system equalizes regional differences, and provides increased access to education for more people.

**P 04**

## Late night learning – raising awareness of patient safety through interprofessional undergraduate non technical skills training

**Elaine Cole and Margot Buckwell, CETL, City University London and QMUL University London**

Contemporary healthcare systems are technologically complex and patient's expectations of safe effective treatment are high. Clinical care is increasingly guided by the evidence base and direction from organisations such as NICE. Despite this focus on improved clinical outcomes, patient safety is an increasing feature of concern for healthcare providers. Between April 2007 and March 2008 in England alone 796,142 patient safety incidents occurred [1]. A proportion of these incidents involved clinical error, human factors, such as the ability to communicate and collaborate are frequently implicated. Indeed the NPSA suggest that a lack of safety culture and poor teamwork contribute to many patient safety incidents.

Lessons learned from the airline industry confirm that serious incidents are predominantly caused by human error rather than technical breakdowns. Research comparing the attitudes of operating room staff, intensive care teams and airline cockpit crews in relation to error, stress and team work showed that human factors such as communication, extreme hierarchy, conflict and leadership influence the team's performance[2]. This has obvious implications for patient outcomes.

Healthcare educators have a duty to educate nursing, medical and other health students to carry out accurate clinical care and develop human factor skills. Traditionally nurses, doctors and allied health professionals are educated separately however on graduating they are expected to collaborate as a team. This has been recognised in the field of post graduate education, especially in high stress areas such as anaesthesia or critical care [3, 4]. Nevertheless, much of this human factors education is uniprofessional, which again does not reflect the reality of clinical teamwork.

One undergraduate study aimed at improving patient safety through interprofessional (IP) simulation training showed that nursing and medical students involved struggled with role definition, competence and team skills in stressful clinical situations [5]. At City University and Queen Mary University London, interprofessional "Late Night Learning" (LNL) simulation sessions are provided to enhance clinical teamwork skills, however non technical skills keep coming up as a priority for these students.

This poster presentation will illustrate the aims and outcomes of LNL, and how this innovation in educational practice helps to raise awareness of human factors in undergraduate students from nursing and medicine. Examples of scenarios and student evaluations will be provided.

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**P 05**

## Evaluation of the paediatric clinical teaching component of a new medical program

**Annette Burgess**

**Introduction:**
In 2005 a new medical curriculum was introduced within the Faculty of Medicine, University of New South Wales. Changes were based on integrated learning within authentic contexts. The paediatric curriculum was changed significantly to include clinical, small group, hospital based teaching in years 1 & 2 of the curriculum. Specifically, the evaluation investigated three tutorials within the clinical component of this course; Taking a paediatric history, Well baby check, and Examination of a normal child.

**Aim:**
The purpose of the study was to investigate students' perception of the new clinical component of the paediatric program on student learning. The study evaluated development of student awareness and understanding of child health issues, competence and confidence in clinical skills; and student perception of active involvement in learning.

**Method:**
The evaluation was divided into two phases. Phase one involved the collection of quantitative data using survey questionnaires from a random selection of tutorial groups (168 students from a population of 364). Phase two involved the collection of qualitative data from focus groups from a convenience sample of students. The survey and focus group questions were based on Brookfield's Critical Incident Questionnaire, which was designed to provide significant feedback on student experiences in the learning environment. Ethics approval was obtained from the UNSW Ethics Committee.

**Results/Discussion:**
In phase 1 of the study, the response rate was 71%. In phase 2 of the study, 18 students participating in focus groups. In terms of clinical experience, the students consistently rated the Taking a paediatric history tutorial and the Examination of a normal child tutorial higher than the Well baby check tutorial. Students perceived that when properly utilised, the clinical setting does increase student awareness and understanding of child health issues by building upon some prior knowledge; enabling collaborative learning; and assisting in retention of information. Student perception of competence and confidence in clinical skills also increased. However, engagement in activities was hindered by student perception of insufficient prior knowledge; a perceived lack of clear guidelines and objectives; limited patients; and inconsistency in tutors.

**Conclusion:**
Early exposure to paediatrics in a clinical setting is highly valued by year 1 and 2 students. In particular, history taking and clinical examination were highly rated, whereas well baby check was less useful.

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**P 06**

**Factors motivating clinical training associates (CTAs) to work with medical students to teach pelvic examinations**

**Annette Burgess, Dr Kirsten Black**

**Introduction:**
Pelvic examinations are an invasive and sensitive examination and increasingly it is difficult for medical students to obtain clinical experience in this area. The Central Clinical School, University of Sydney, employs Clinical Training Associates (CTAs) who teach medical students the communication and technical skills to undertake a pelvic examination and pap smear whilst being examined themselves.

**Background:**
There is empirical evidence that teaching by CTAs can provide an effective learning experience for medical students. Currently the CTAs are employed in slightly different roles across various clinical schools. At the Central Clinical School the CTAs undertake the teaching of pelvic examinations in pairs, without the presence of a medically trained tutor. At other clinical schools a medical practitioner is present in the room with the CTA and does much of the teaching.

**Aim:**
The study seeks to investigate the factors motivating the CTAs to take part in the teaching program and to discuss their experiences of the different educational methods. Other areas, such approaches to CTA recruitment, training, feedback and retention will also be investigated.

**Methods & data collection:**
Six CTAs have taken part in a focus group session. The focus group has been recorded and transcribed.

**Data analysis:**
Qualitative data analysis methods will be used to undertake theme and content analysis.

**Initial findings:**
Initial findings from the focus group indicate that the CTAs' motivation comes largely from intrinsic rewards, such as providing a sense of "worth", of "giving back to the community", and attainment of "new knowledge". The women felt that these rewards were somewhat diminished when a passive role is taken in teaching at some clinical schools. Further data analysis is underway, and will be presented.

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**P 07**

## Simulated patients: cost or benefit?: experiences of recruiting a cohort of simulated patients from the community for undergraduate interprofessional healthcare student training

**Dick Churchill, Christine Haneline, Frank Coffey**
**University of Nottingham Medical School**

The use of simulated patients (SPs) in undergraduate medical training is well established (1) although there is an ever-increasing demand in order to bridge the gap between basic skills teaching and clinical practice. There is a need to build capacity in a cost-effective way in order to provide sufficient resource for the wide range of roles in which SPs can function. There are also opportunities for SPs to work across health professional boundaries with cohorts acting as a shared resource within faculties.

This poster describes a project aimed at recruiting and providing basic training for a cohort of community volunteers, enabling them to become simulated patients, and to act as a resource for teaching in our multi-professional Clinical Skills Centre. The project was part of the work overseen by a steering group consisting of teachers from medicine, nursing, midwifery, physiotherapy and dietetics.

Working within a relatively low budget, we advertised within local general practices and through word of mouth. We provided an introductory session to explain the purpose of the project and the potential roles of SPs. Those volunteers wishing to continue were then invited to two further training sessions, and then utilised in formal teaching sessions and assessments. To date approximately 60 SPs have been recruited.

In this poster we will present an evaluation of the project to date, including baseline demographic data from the cohort, a description of the roles which they have undertaken, and feedback from staff, students and the SPs themselves. We will identify the potential benefits, but also the difficulties that we have experienced, and place this in an economic context. We will discuss the next phase of the project and make recommendations for others who may considering a similar approach.

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**P 08**

## Progress towards creating a benchmark for numeracy for nursing

**Diana Coben, King's College London**
**Carol Hall, University of Nottingham**
**B. Meriel Hutton, King's College London**
**David Rowe, University of Strathclyde**
**Mike Sabin, NHS Education Scotland/Scottish Government**
**Keith Weeks & Norman Woolley, Authentic World®, University of Glamorgan**

**Abstract:**
In this poster we shall illustrate our progress on an inter-disciplinary project funded by NHS Education for Scotland (NES) in which we aim to establish a benchmark for numeracy in nursing at point of registration. Numeracy is acknowledged to be a key competence for professional practice in nursing (Hutton, 1997) and an important aspect of patient safety. Since September 2008, the body regulating the profession in the UK (the Nursing and Midwifery Council, NMC) requires nursing students to achieve 100% in a test of numeracy in practice (NMC, 2007) before achieving registration as nurses, yet there are currently no national standards for the assessment of numeracy during pre-registration nurse training. We aim to create a framework for a benchmark in this Scotland based study.

In Phase 1 we established the case for creating a benchmark, explored key issues in determining the achievement of competence in nursing numeracy and developed principles for the proposed benchmark (Coben et al., 2008). We then conducted a pilot study with pre-registration nursing students in a large university school of nursing in order to test the efficacy of a computer-based assessment of one key aspect of numeracy for nursing: medication calculation. We compared assessments in two different forms of simulation of reality: outcomes from the computer-based assessment were compared with calculations presented in a practical setting. The pilot also acted as a test of the research design: a quasi-experimental cross-over design in which half the participants were exposed to the computer-based assessment before undertaking the practical tasks, while the other half were exposed to the practical tasks before the computer-based assessment. In Phase 2 we conducted a study with nursing students in selected universities in Scotland. We shall present the outcomes of the study to date and our plans for future work towards creating a benchmark.

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**P 09**

## Implementation of a peer tutoring clinical skills revision programme for junior medical students

**Crosthwaite H, Wells A , Jarvis R, Ker J.**

**Summary:**
Junior medical students at Dundee University identified a lack of time for practicing newly-acquired clinical skills within the core curricular programme. This poster describes the pilot of a voluntary peer tutoring clinical skills revision programme.

**Why the idea was necessary:**
A need was identified for additional revision sessions for clinical skills to complement the timetabled undergraduate clinical skills teaching. Feedback from medical students had highlighted that there was insufficient time to achieve aptitude and confidence in clinical skills during curriculum teaching in years one to three of the medical course.

**What was done:**
Peer tutors volunteered from years 4 and 5 of the medical course to facilitate sessions. Tutor training was provided by a Clinical Lecturer from the Clinical Skills Centre in order to standardise teaching methods and reinforce key skills upon which the sessions should be focussed.
The revision skills sessions consisted of four stations addressing developing history taking and physical examination skills. These sessions were sequenced to follow the systems core teaching. Each station was attended by a maximum of 5 junior students and was facilitated by a peer tutor, with the groups rotating around the stations every 20 minutes.

**Evaluation of results:**
Over the course of a two week period, approximately 150 second and third year medical students attended pilot revision sessions. Feedback was sought using a semi-structured questionnaire from both tutors and tutees.

**Perceived benefits of the pilot scheme included:**

- A reinforcement of knowledge previously gained
- Opportunity to receive helpful feedback from more experienced students
- Opportunity to practice clinical skills in a friendly and relaxed environment
- Increased confidence in both junior and senior medical students' clinical skills

**Conclusion:**
The pilot run of the peer tutoring clinical skills revision sessions was well-received by both tutors and tutees. The sessions are to be fully implemented, with ongoing evaluation of the benefits and identification of areas for improvement.

**P 10**

## The 5 r's of clinical reasoning

**Jennifer Dempsey, Tracy Levett-Jones, Kerry Hoffman, Sharyn Hunter, Noelene Hickey, Danielle Noble, Carol Norton, Sharon Bourgeois**

**Background:**
Increasing numbers of adverse patient outcomes and escalating complaints are evident in Australia and internationally[1]. Research indicates that nurses with effective clinical reasoning skills have a positive impact on patient outcomes[1]. Conversely, those with poor clinical reasoning skills often fail to detect impending patient deterioration ie "failure-to-rescue"[2]. Clinical reasoning (CR) is the process by which nurses (and other clinicians) collect cues, process the information, come to an understanding of a patient problem or situation, plan and implement interventions, evaluate outcomes, and reflect on and learn from the process[3].

Contemporary educational approaches do not always facilitate development of CR skills in undergradaute nursing students. Innovative approaches are required to develop these skills. This poster describes the implementation of an interactive computerised decision support framework (ICDSF), an approach that has been successfuly used to enhance nursing students' CR ability. There is evidence that decision support frameworks have the potential to improve CR skills[4]. They provide the theoretical foundation to authentic clinical scenarios where patient deterioration can occur quickly. They use a sequential, 'step-through' approach to a scenario that requires students to make decisions at criticial junctures. In this way students are exposed to 'real life' situations and provided with opportunities to test out their knowledge, make mistakes and to learn from those mistakes. Immediate feedback on incorrect decisions is built into the framework with explanations provided.

The ICDSF is structured on "The five Rights of Clinical Reasoning": right cues (student acquires/ recalls appropriate information for the particular patient situation/context), right reason (student 'reasons' through the CR cycle, analysing and synthesising the information, making the right inferences), right patient (student correctly prioritises which patient to focus on at a given time), right time (interventions are initiated at the right time and in the right sequence), and right decision (student decides upon the correct action/intervention). This innovative educational approach is one component of a larger funded project on clinical reasoning being undertaken by the researchers.

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3. Hoffman, K. (2007).Unpublished PhD thesis, A comparison of decision-making by "expert" and "novice" nurses in the clinical setting, monitoring patient haemodynamic status post abdominal aortic aneurysm surgery. University of Technology, Sydney.

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**P 11**

## Improving the student experience: the use of culturally appropriate simulation in the teaching and examination of communication skills

**Professor Tessa Dunseath**
**Associate Professor Paul Fullerton**

In 2008, Monash University celebrated its Fiftieth Anniversary, and in those 50 years has become one of the top universities in Australia. Monash University was invited by the Malaysian government to open a campus, and in 1998 became the first full-fledged foreign university campus in Malaysia. The initial intake for Medicine was in February 2005, although for 2 years, students commenced in Australia. In 2007, all students for the Malaysia cohort were based in Malaysia. The Monash MB, BS program is the first medical course taught outside Australia and New Zealand to be accredited by the Australian Medical Council. This means that its graduates will be recognized to practice in Australia without having to take an additional examination. Monash also has a graduate entry program in Gippsland, Victoria.

The MB, BS curriculum is the same across all three Monash campuses. However, from the outset it was recognized that there would be cultural and ethical/legal differences in many of the subject areas. This would particularly apply in the teaching of communication skills, and in examinations – especially the Objective Structured Clinical Examinations (OSCEs). The use of simulation and role-play are considered to be effective tools in communication skills teaching. However, culturally sensitive resources to support this approach in Malaysia are limited. There is an abundance of 'western' orientated media which may not always be appropriate for a South East Asian culture. Examiner training and marking standardization for OSCEs has also presented challenges. The equivalence of assessment outcomes is of concern to all 'stakeholders' – faculty, students, governments and the Australian Medical Council.

The Medical Education Unit within Monash Malaysia began working to produce DVDs to depict a cross section of communication encounters that students are expected to experience during their career in medicine. Initially, the DVD resource was planned to be used for teaching, and student self directed learning of communication skills, and for the standardization of teaching in clinical skills. However, development of DVDs for OSCE-examiner training has become a greater priority, along with ensuring

'equivalence' of different ideal responses.

The poster will discuss experience in developing and use of these resources and possible effects on the student communication skills experience. The poster will also discuss the feedback provided by the teachers of communication skills and OSCE examiners.

**P 12**

**Knowledge in the palm of your hands: PDAs in the clinical setting. How can clinical skills education improve patient safety?**

**Nina Godson, Ann Wilson**

In all health care settings efficient hand washing is crucial to safe guard patients from infection (Gould 2004). Research has shown that healthcare workers may not wash their hands at appropriate times, or may wash them ineffectively. This small study was designed to test the use of Personal Digital Assistants (PDAs) by student nurses in clinical practice to support their hand washing skills. It is an important topic for nurse educators to address to meet the growing demand for usage of handheld technology by nursing students and nurses (Koeniger- Donohue 2008) A group of 20 nursing students were taught how to use a PDA containing information about hand washing and infection control. The students took the PDAs into clinical placement. At the end of their placement questionnaires and focus groups were used to ascertain how useful the PDAs had been and whether the nurses thought they influenced their practice.The initial study was restricted to just 20 students due to the cost of the PDAs. It is planned to repeat the project using students from other professions (thus providing interprofessional data) and loading the PDAs with further educational support, such as Cardio Pulmonary Resuscitation. Electronic support for student learning is on the increase and the PDA provides a convenient reference for the students, the majority of whom will be familiar with such technological advances (Miller 2005). The handheld device can provide a critical mass of information that is relevant and quickly accessible at the point of need, resulting in benefits to patient safety. In light of recent media this project is one step further to prevent the spread of infection between venerable patients and staff.

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**P 13**

## A study to compare calculator use and non-calculator use in nursing students' accuracy when practicing drug calculations

**Ann Wilson, Nina Godson**

Numerical skills are required for many nursing roles and nurses in practice need to attain a level of numerical skill so that they can care for patients safely (Department of Health 2001, Nursing and Midwifery Council 2004). Numeracy skills are tested in the pre-reg nursing course. Nurses'performance in these tests can be affected by stress (Betz 1978, Blakeman-Hodge 1999, Pozehl 1996).

There is a need to explore whether calculator use increases nurses' confidence (thus reducing their stress) and numerical accuracy or not. The literature shows that calculators are commonly used in clinical practice (Hutton 1998). Calculator use can increase arithmetical accuracy but has no effect on conceptual skills (Shockley et al 1989) and a nurse using a calculator must already have these conceptual skills. Previous research (Wilson 2003) has indicated that there is a need to determine if calculator use would improve nurses' numeracy skills. Approximately 300 nursing students undertaking an IV Maths workshop were asked to participate in the study. They were divided into two groups. One group was permitted to use calculators and one was not. The results from the two groups were compared. The study is ongoing but preliminary results show that there is no difference in the scores between the two groups. However the students who do not use a calculator take longer to do the workshop. It seems that this extra time is used conceptualizing the maths problem to be solved and carrying out the necessary calculation. It can be argued that this is an important skill for nurses to acquire to improve their drug administration practice whether using a calculator or not.The results of the study will add to the body of evidence concerning calculator use and education in their use in nurse training, and add to the debate about whether calculators should be permitted during numeracy tests and exams.

**Members of Project Team:**
Ann Wilson, Senior Lecturer, Coventry University
Nina Godson, Senior Lecturer in Clinical Skills, Coventry University Helen Ford, Senior Lecturer, Coventry University

**References:**
Betz NE (1978) Prevalence,distribution, and correlates of Math Anxiety in College Students Journal of Counselling Psychology 25(5) p441-448 Blakeman-Hodge M (1999) Do anxiety, math self-efficacy and gender affect nursing students'drug dose calculations? Nurse Educator 24(4) p36,41,48 Department of Health (2001) An Organisation with a Memory – Report of an expert group on learning from adverse events in the NHS HMSO London Hutton BM (1998) Nursing mathematics: the importance of application Nursing Standard 13 (11) p35-38 NMC (2004) Standards of proficiency for pre-registration nursing education Portland Place London Pozehl BJ(1996) Mathematical calculation ability and mathematical anxiety of Baccalaureate nursing students Journal of Nursing Education Vol 35 No1 p37-39 Shockley SJ McGurn WC Gunning C Gravely E Tillotson D(1989) Effects of calculator use on arithmetic and conceptual skills of nursing students Journal of Nurse Education Vol 28 p402-405 Wilson A (2003) Nurses' math: researching a practical approach Nursing Standard Vol 17 No47 p33-36

**P 14**

## Interprofessional governance for teaching and learning

**Dr Heather Grusauskas, Director of Medical Education**
**Anne-Marie Mahoney, Manager, Clinical Nursing Education**
**Austin Health, Victoria**
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**Aim**:
To provide an effective governance structure for teaching and learning that contributes to optimal patient outcomes at Austin Health, one of Victoria's largest health care providers.*

**Background:**
Prior to 2005 the user groups responsible for education at Austin Health had no formal learning connection. The opening of an education centre in the hospital redevelopment was part of the hospital's vision for interprofessional collaboration. The concept of interprofessional collaboration envisioned was beyond the traditional teamwork ethos and was situated in 'interprofessionality'. Moreover, it was determined that there would be clinical and socially constructed relationships among discipline groups that focused on patient centred care.

**Method:**
An interprofessional user group was established from the major discipline groups represented at the hospital. This included two universities whose relationship was formalised through MOUs. The task was to build a learning matrix that supports interprofessional learning at Austin Health by improving teamwork and collaboration. The Learning Matrix includes representation of the learning process, relevant frameworks for discipline groups involved and the key principles of learning across all groups. The Learning matrix is the framework that supports interprofessional learning. This group meets monthly and has a 12 month rotational Chair position.

**Results:**
Initially there was a transitional phase in which staff were relocated from quarantined groups, these being University academics from University of Melbourne, La Trobe University, Austin Health Medical Education Unit and the Austin Health Clinical Nursing Education Department into a interprofessional matrix with the intent of improving learning outcomes for students and staff at the hospital and ultimately improving patient care. One of the highlights of this transition has been the development of a clinical skills environment and the establishment of collaborative teaching programs. The clinical skills environment is a simulation and clinical skills facility, designed to enable simulation based learning. The environment promotes interactivity and provides a space for case study and problem-based learning. The intent is to reflect the practise environment where collaboration of professional groups is in action to provide optimal patient outcomes. To date learning has not occurred in collaboration therefore making the transition to practice more difficult. Initially this has been with staff groups from the health service but in time will expand to include undergraduate students.

**Conclusion:**
The establishment of an interprofessional matrix has resulted in the disciplines connecting with each other in terms of open dialogue and shared teaching experiences. There has also been recognition of ongoing similarities and differences between the disciplines which recognises the possibility of collective learning.

**References and Acknowledgements:**
* Austin Health is the major metropolitan provider of tertiary health services, health professional education and research in the northeast of Melbourne. Austin Health is world-renowned for its research and specialist work in cancer, liver transplantation, spinal cord injuries, neurology, endocrinology, mental health and rehabilitation. Austin Health comprises Austin Hospital, Heidelberg Repatriation Hospital and the Royal Talbot Rehabilitation Centre.
During 2007-08, Austin Health's 7162 staff treated a record 85,670 inpatients and 151,968 outpatients.

**Education User Group (Austin Health):**
Dr Heather Grusauskas, Director of Medical Education (Current Chair)
Anne-Marie Mahoney, Manager, Clinical Nursing Education
Cathy Nall, Director of Physiotherapy, Associate Clinical Dean Physiotherapy, University of Melbourne
Elizabeth Watt, Lecturer La Trobe University
Dr Richard O'Brien, Clinical Dean, University of Melbourne
Anne Lafferty, Consultant, Learning and Organisation Development Unit

**P 15**

## The value of guided studies in clinical skills teaching

**Clare Hawker, Sally E. Rees, Jadwiga, B Howell, Lynne R. Broome**

This poster will establish the value of using guided studies to enable students to explore the knowledge base of specific clinical skills. Guided studies were introduced to encourage students to use an evidence-based approach to care and to promote development of skills for lifelong learning. Critical thinking, lifelong learning and maintaining competency are paramount in the delivery of safe nursing care (NMC 2008) and can only be achieved by student engagement and independence in learning (Hoffman 2008).

Students access the appropriate guided study via a dedicated virtual learning site at Cardiff University prior to the session in the clinical skills laboratory. The aim, therefore, is that students approach each clinical skills session equipped with some knowledge and understanding of the evidence base. All guided studies are similar in format. They direct students to access information and the relevant evidence base using a range of sources, this is often a significant barrier to evidence based care (Leasure, Stirlen and Thompson 2008). Students are required to answer questions and consider scenarios which are used to promote a holistic context and a problem solving approach.

The poster will outline the advantages and disadvantages of using guided studies in clinical skills teaching. It will also discuss how this approach facilitates best use of the Clinical Skills Laboratories.

A preliminary evaluation of has explored the value of guided studies from a student perspective, their effectiveness in preparing students for both skills sessions and clinical practice, and the implications of students' failure to complete the guided study. It was intended that the findings of this evaluation would inform recommendations for their future development and use. The evaluation found that student engagement is variable for a variety of reasons including accessibility to necessary resources, mismatch between projected and actual completion time, and volume of concurrent study demands.

**P 16**

## Developing interprofessional clinical skills in the undergraduate curriculum using simulation

**Hogg, G., McLafferty, I., Ker, J.S.**

**Theme Interprofessional Collaboration**

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Within health and social care services there has been a continuing emphasis since the early 1990s on developing interprofessional working to improve patient care provision (DoH, 2000; 2001). This has been supported by a drive towards establishing interprofessional learning for health and social care professionals at both pre- and post-qualification.

Throughout the country, Universities have attempted to introduce various elements of interprofessional learning into their health and social care curricula. However, most of the published initiatives have been implemented in the post-qualifying stage (Freeth et al 2002). Recently there has been an increasing drive to develop curricula that will provide pre-qualifying learners with interprofessional experience and awareness.

Most interprofessional learning takes place in the University setting; there are only limited numbers of initiatives which have attempted to take structured interprofessional learning into the clinical placement setting (Reeves and Freeth, 2002). This is despite the fact that most health and social care students work and learn in a multiprofessional environment.

This poster presentation will describe the current work being undertaken within the University of Dundee to facilitate work based learning using a simulated ward environment to promote effective teamwork in medical, nursing and allied health professional students. The presentation will discuss the future plans of the programme in terms of transference of skills learned in simulation to the workplace.

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Freeth, D. Hammick, M. Koppel, I. Reeves, S. Barr, H. (2002) A Critical Review of Evaluations of Interprofessional Education. Learning and Teaching Support Network: Health Sciences and Practice: London.

Reeves, D. and Freeth, D. (2002) The London training ward: an innovative interprofessional learning initiative. Journal of Interprofessional Care 16(1): 41-52.

**P 17**

**Diagnostic thinking for junior medical students**

**Rob Jarvis**

**Background**:
Diagnostic thinking is a high order clinical skill and is integral to the consultation, communication and documentation. Diagnostic thinking is also a difficult area to introduce to students who have had little or no experience of clinical work. Traditionally this area has been taught in a rather ad hoc fashion or has been part of the hidden curriculum of many medical schools.

In Dundee we have introduced a staged introduction to diagnostic thinking as it relates to diagnostic consultations and the documentation of these consultations.

**Method:**
At the start of year two students are given a four point structure which they are invited use to document the biomedical aspect of the 'history of the presenting complaint'. This structure uses the following headings:
i. clarify,
ii. system questions,
iii. risk factors and red flags,
iv. other differential diagnostic information.

Clinical skills tutors were trained in this structure, and student materials produced by the medical school were altered to reflect it.

The expectation has been that students start with a simple structured system which enhances the communication of diagnostic information via the patient record. The expectation was that it encouraged the transition from rote presentation of findings, through inductive to deductive reasoning – especially as it actively encourages students to think about 'what might be wrong' with their patient.

**Evaluation:**
Experienced clinicians compared the completed patient records of students in two successive years at the end of year 2 to see whether the new system had improved their documentation of patient's presenting complaints and whether it clarified information required for diagnostic reasoning.

Further work need to look at how teaching the diagnostic reasoning process differs from teaching the documentation of that process, and to whether this matters.

**P 18**

## Sharps injuries including needlestick (SIN) in nurses in New South Wales, Australia

**Kable A, Guest M, McLeod M, Butrej T**

**Objectives:**
To determine nurse reported period prevalence of Sharps Injuries including Needlestick (SIN) in the past 12 months, factors associated with SIN and nurses' perceptions of SIN and related practices in the workplace.

**Methods:**
A cross sectional survey was conducted on a sample of nurses from the NSW Nurses' Association in 2007 (N=7423).

**Results:**
The response rate was (19%) 1373. The reported 12 month period prevalence was 6.5% (n=1301 eligible participants). A significantly higher rate (16.4%, p=0.002) was observed in remote areas. For participants with SIN, 86% reported the injury and 35% believed they were at risk for contracting a blood borne disease. Overall, 73% participants reported that policies were followed in the event of an SIN incident. Some reported recapping after drawing up medications and after administering medications or obtaining blood samples.

**Organisational practices included:**
working in sharps safety oriented organisations, routine Hepatitis B vaccination and provision of sharps disposal containers at point-of-use locations. Safety Engineered Devices (SEDs) were available and perceived to be effective by respondents who reported they preferred to use these devices. Involvement in selecting and evaluating SEDs was reported by 55% of nurses. The major reasons influencing nurses to report SIN were: fear of acquiring hepatitis B, C or HIV, need to have risk assessed, and being informed about blood test results. Only 39% reported that SIN data were routinely provided to staff.

**Conclusions:**
SIN remains a clinically significant OH&S issue for the profession. Overall, nurses' reported practices are consistent with NSW Health Policy Directives for following up SIN incidents, provision of sharps disposal containers, use of SEDs, product evaluation, reporting of injury data, hepatitis B vaccination and reporting of SIN. There is scope for some of these practices to be improved.

**P 19**

## New approaches to infection control: virtual gaming

**Sarah Keely**

In the contemporary world of healthcare there remain global issues concerning infection control and prevention measures. As an essential element of pre registration nurse education (Department of Health 2006, 2008, Nursing and Midwifery Council 2007), proficiency in this skill must be attained by all student nurses prior to registration.

The use of serious games that involve computer simulation has been seen to accelerate learning and increase motivation (de Freitas and Jarvis 2006 cited Pulman and Shufflebottom 2008). A serious game was developed that enables students to participate in a virtual infection control simulation. It is intended to incorporate the package as part of a blended learning approach into the pre registration nursing programme.

A pilot study was conducted to evaluate the experience of using the game with 60 third year pre registration student nurses. The process involved small group of two or three students completing the game together. Feedback was requested from each group via an on-line survey. Of the 24 respondents, 83% enjoyed using the package, 91% felt it was an interesting way to teach infection control, and 87% stated that it helped them link theory to practice. Verbal feedback was also requested at the end of the session.

This poster submission will introduce the concept of serious gaming as a learning resource. Describe its use within the pre registration nursing programme and discuss the results of a pilot study into the experience of student nurses using the package.

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of a Serious Game in the Health Care Sector. Cambridge: Conference Proceedings, Serious Games on the Move '08.

**P 20**

**Self-directed learning in a student practice laboratory**

**Kingston, L**

The poster will present visually the findings from an evaluation of a pilot Student Practice Laboratory recently established in the Clinical Skills Laboratories of the Department of Nursing and Midwifery in a University in the Mid-western region of Ireland.

In 2007 a pilot Student Practice Laboratory (SPL) was opened in the Clinical Skills Laboratories (CSL) at University of Limerick. The SPL allows students the opportunity of self-directed learning (Keetsemang et al, 2008) and an opportunity to practice update and review clinical skills. As self-directed learning becomes more apparent in nursing curricula internationally (Ncama and Cassimjee 2005) higher education institutions need to provide adequate resources to students to support this development. The student practice lab affords students an opportunity to engage in self-directed learning in a meaningful way. Nicol and Glen (1999) support independent access by students to lab facilities as it encourages students to take responsibility for the development of their clinical skills or to further practice and maintain skills. The development of the SPL contributes to a positive learning experience for our nursing and midwifery students at University of Limerick.

A small-scale evaluation of the SPL was conducted and overall the results were very positive. The views of students, faculty staff and the CSL team were collated. A utilization review was also conducted. While the pilot phase of the initiative ran smoothly, on evaluation some areas for further consideration have been noted, including concern in relation to lack of supervision of students. Maintenance and security of teaching and audio-visual equipment and monitoring the use of consumable stock are also areas of concern. Further larger scale evaluation is planned at the end of the academic year and evaluation findings will be presented in this poster presentation.

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**P 21**

## A framework for the consultation – building on the Calgary-Cambridge model

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**Presenting Author:**
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**Introduction:**
The consultation is the foundation of medical practice, and must therefore be a core component of undergraduate medical curricula to ensure that our graduates can consult. More and more medical schools around the world are adopting the Calgary Cambridge model for teaching the skills of medical interviewing in a patient-centred way (1). The model, originally developed in 1998, was not intended to be static and has already been "enhanced"(2). At Keele, the consultation skills of communication, physical examination and clinical reasoning are taught and assessed together. The Calgary Cambridge framework has therefore been adapted for this integrated approach.

**Description:**
These modifications comprise:

- the elaboration of the task of physical examination
- the addition of the tasks of recording the consultation and
- presenting the patient to colleagues
- renaming the task of "explanation and planning" as "patient management"
- strengthening the "providing structure" pillar as a "problem solving" and "organisation" pillar. The 'pillars' in the Calgary Cambridge framework are "building the relationship" and "providing structure". It seemed important to show how problem-solving skills run through the consultation, affecting the gathering of information, the focus of the physical examination, the choice of investigation, formulating a diagnosis and the sharing of information, decision-making and the management plan with the patient.

**Conclusion:**
We consider this framework for the consultation to be a suitable scaffold for skills teaching from year 1 of the new Keele curriculum with basic skills of patient-centred information-gathering – history and examination, and sharing information with patients being learned in years 1-3 and the addition of the higher consultation skills of diagnosis and problem-solving in year 4. The associated assessment tool for consultation skills

has been developed and will be validated.

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(1) Kurtz SM, Silverman J, Draper J, 2005 Teaching and Learning Communication Skills in Medicine Second Edition Radcliffe Publishing
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**P 22**

**Are we there yet?**

**Sheryl Mailing**
**Speech Pathologist /Clinical Educator LaTrobe University Royal Victorian Eye and Ear Hospital**

Effective clinical teaching of small groups of allied health students isgreatly enhanced by optimal engagement and participation of the students.

This can be challenging especially with students in their final placement. The literature provides a range of tools aiming to achieve this. One tool that assists us in attaining maximum engagement in Speech Pathology clinics at LaTrobe University and the Royal Victorian Eye and Ear Hospital is the use of weekly themes to promote shared discussion and reflection. Initially the theme is selected by the supervising clinician. It is designed to appealto the student's interests and sense of humour and is often an Australian colloquialism.

The aim is for the theme to represent a guide to the teaching goals for that week. Once the theme is established, the studentsare encouraged to use it to guide the discussion following each patient session. It is also used in structuring observations, selecting references for follow-up reading and choosing therapy techniques for demonstration or role playing prior to using them in therapy. After an initial period the student cohort is encouraged to select the theme. This aims to increase the responsibility the students assume for their learning goals.The usefulness of this approach was evaluated in a quality activity in which three groups of newly graduated Speech Pathologists were surveyed for their views of their level of engagement and participation in their final clinical placement. A total of ten new graduates participated in the project. Themes were used only for the second group. Student's perceptions of the technique were evaluated using a focus group with a semi-structured interview.

Analysis of the group discussions using standard qualitative techniques indicated that increased engagement and participation were experienced by students for whom themes were incorporated into their clinical learning.

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**P 23**

**Evaluating the educational impact of direct observed procedural skills (DOPS) on year 5 medical students**

**McLeod, R. Ker, J. and Mires, G.**

**Aim:**
To evaluate the DOPS assessment tool and how it impacts on the student learning in the simulated setting.

**Background:**
There is evidence to suggest that supervisor evaluations in the past have been unreliable. (Turnbull et al 1998) and several authors also comment on the lack of rigorous testing of procedural clinical skills. (Sidhu et al 2004) DOPS has been found to be a valid and reliable instrument. It has been designed specifically for the assessment of practical skills. (Darzi and Mackay 2001)This study would evaluate a new method of assessment in undergraduate medical education.

**Participants:**
It is the author's intention to introduce the DOPS assessment tool into the teaching for year 5 medical students who would be invited to take part in the study. Piloting the DOPS assessment on final year students in the simulated setting could evaluate strengths and areas for development.

**Method:**
A self-administered questionnaire would be completed by successive groups of students after a clinical skills tutorial and a DOPS assessment. Focus groups will be organized following the teaching and a selection of questions will be provided to encourage group discussion. Main outcome measures would be student perception of the quality of performance and usefulness of the DOPS as an assessment instrument compared to other methods. i.e. Procedural Checklists.

**Discussion:**
The feature of DOPS which is most commonly cited as being responsible for its high educational value is the opportunity it creates for pertinent feedback from more experienced doctors.

**Conclusion:**
The poster presentation will describe the current work being undertaken within the School of Medicine Clinical Skills Centre within the University of Dundee.
The study will commence on receipt of ethical approval with data collection over two weeks

and study completion by June 2009. This study is being undertaken as part of the assessment for the Professional Development Module of the Postgraduate Certificate in Teaching in Higher Education.

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**P 24**

## GeCoS: a tool for the assessment of generic consultation skills within the Calgary Cambridge framework

**RK McKinley, J Lefroy, S Gay, S Williams**
**Keele University School of Medicine**

**Background:**
Formative assessment and feedback are essential aspects of skills development programmes. It is desirable that they are congruent with summative assessments used and both are congruent with the taught curriculum. Consultation skills teaching in many medical schools is based on the Calgary Cambridge model, a variation of which (presented at this conference) is used at Keele, yet there are no generic assessment tools which map onto it. One of the authors has worked with the Leicester Assessment Package. While it does not map onto any established consultation skills curriculum, it contains a series of generic strategies for improvement mapped onto each of its competences which can be used by tutors as the basis for preparing feedback. We now describe a generic assessment tool which maps onto the Calgary Cambridge model yet retains the formative assessment support provided by the Leicester tool.

The Generic Consultation Skills (GeCoS) tool
This consists of six of the seven categories of competence contained in the Leicester tool together with 'Organisation/Structure' and 'Professional communication' categories which reflect elements of Calgary Cambridge not represented in the Leicester tool. Component competences from the Leicester tool have been revised and reorganised to reflect Calgary Cambridge and new competences developed. Finally, additional strategies for improvement have been developed in collaboration with experienced teachers in primary and secondary care.

**Experience:**
We have initiated training with our final year GP tutors and are using GeCoS for final year student workplace assessments. The reactions of teachers have been positive. We are currently conducting a formal face validation of the instrument. All assessment of consultation skills in the new curriculum will be based on GeCoS.

**Summary:**
GeCoS provides a consultation skills assessment tool which is congruent with Calgary Cambridge. We are investigating its utility for assessment.

**P 25**

**Cadaveric surgery versus anatomical dissection: trial of a novel approach to basic surgical skills and clinical anatomy for medical undergraduates**

**R.Mehdian, J.L.Nutt, I.Parkin, J.A.Dent, C.F.Kellett**

**Introduction:**
Anatomy is an essential basic principle of every undergraduate medical course and has important implications for patient safety. Changes to the anatomy act in 2006 have unlocked opportunities for new methods of learning clinically relevant anatomy; as surgical procedures may now be carried out, in full, using cadavers.

**Aims:**
We hypothesise that by taking advantage of these changes, we can provide more purposeful and memorable ways to learn anatomy, compared to conventional teaching methods - with the added benefit of providing a valuable insight into surgery.

**Methods:**
A group of 3rd year medical students were randomly allocated to prepare for and perform either a Shoulder Hemiarthroplasty or Anatomical Dissection of the shoulder by identifying key anatomical and surgical objectives. The study was performed in a simulated operating room environment. All students took an anatomy test before and after the procedure to compare learning from the two teaching methods. Both groups also participated in focus group discussions.

**Results:**
The Cadaver Surgery group showed better knowledge of anatomy after the procedure, with the addition of basic surgical skills acquisition.

**Discussion:**
The initial preparation greatly enhanced students' anatomical knowledge of the shoulder by identifying the relevant anatomy during the surgical procedure itself. Uniquely the surgical nature of this project also provided undergraduate students with a platform to practice key surgical skills, principles and etiquette. It may help to improve patient safety.

**Conclusion:**
We believe that learning anatomy via a surgical approach provides a relevant, in depth, purposeful and enjoyable learning experience and therefore could be considered for incorporation into undergraduate teaching.

**P 26**

**The use of interprofessional simulation for the preparation of newly qualified practitioners (Hard Day Nights)**

**Gordon Mitchell & Dionne Richardson**

Hard Days Nights session was devised to teach final year medical/nursing (adult and mental health) and pharmacy students about communication amongst other professionals, prioritisation of care, time management and patient safety. From module evaluation in all disciplines it was found that these skills are very difficult to teach and assess in a classroom session therefore it was felt that simulation was the best method and provided the students with a 'safe learning environment'.

The sessions are based around a busy Accident and Emergency unit. The 5th year medical students acted as Foundation year 1 doctor, the 3rd year nursing and final year pharmacy students acted as newly qualified practitioners. The medical students rotated around four scenarios which contained various tasks for example; assessing a confused lady who has fell out of bed and has MRSA, explaining a medication error to a patient's relative. Each scenario was staffed by a student nurse; acting as a newly qualified practitioner, an 'on call' pharmacist (student) and a qualified 'sister' was present if they needed help. During the session they will also be paged to perform other tasks such as writing a prescription or looking at and ECG. This then enabled the students to prioritise which tasks they needed to do first.

The Foundation doctors could call for help at any time by paging the Registrar on call who was only available by telephone for advice. Initial evaluation from the students suggested that the events had given them a better understanding of each other's roles/responsibilities they were soon to undertaken.

This project is supported by CETL4HealthNE and is coordinated through the Practice Based Approaches to Learning, which is a work stream of the CETL4HealthNE.

**P 27**

## Embedding holism in a clinical skills curriculum

**Lesley Nickless**
**Rosalyn Joy**

Nursing worldwide remains a predominantly practice based discipline with vocational relevance at its core (Quinn 2007, Wellard et al 2007). The client experience lies at the heart of healthcare; the primary objective being the delivery of a workforce that has the capacity, capability and competence to meet ever changing needs of clients, regardless of the environment (NMC 2004).

In order to achieve this, care delivery should be based upon the beliefs and values of holism, which arises from the premise that all humans have a desire to be treated as a whole person; who is able to relate and respond to human interaction (Joy 2008).

In contemporary practise, the skills required for care delivery are often developed within clinical skills centres, which arguably provide a safe, risk free environment in which to practice skills. However, a problem arises when the focus on skills acquisition alone produces behavioural based outcomes of a cognitive and psychomotor nature, thus excluding the potential to provide holistic care.

A framework of holism, entitled 'The Brick in the Wall' was developed at Bournemouth University (BU). Each brick of the framework represents a key holistic value, for example; dignity or comfort. When cemented together the framework provides a foundation for teaching and encourages students' to consider the wider nature of care delivery, albeit in a skills environment.

The framework also provides the criteria for a summative skills assessment at the end of year one. The students utilize the criteria to explore and critique a recording of their practice. Initial evaluation, through assignment marking, demonstrates that students are capable of applying the values of holism to their care of others. Further research on the framework is subsequently planned.

This poster submission provides a pictorial representation of the framework demonstrating how holism is embedded within our Clinical Skills Curriculum.

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**P 28**

**Simulation on a shoestring**

**Owen Lysa E, Hogg George, Ker Jean S**

**Author Biography:**
Lysa Owen is a clinical lecturer in the clinical skills centre at the University of Dundee. She is a member of the College of Emergency medicine, a Fellow of the Higher Education Academy and a generic instructor trainer for the UK resuscitation Council. She has a clinical background in Emergency Medicine and has worked in emergency medicine and associated specialties in Scotland and Australia. Her interests include the use of simulation in enhancing teaching and learning in the undergraduate medical curriculum. She has presented and published work including the use of simulation in reduction of laboratory test request errors, simulation in ambulatory urology and e-learning.

**Summary:**
Simulation can be expensive in terms of people, time and money but doesn't need to be. A high cognitive fidelity simulated exercise using a low technology, cost effective approach can be used to develop safe prioritisation and patient assessment skills. This poster describes how principles of tactical decision games (TDG's) were used to design a high cognitive fidelity exercise for hospital at night practitioners to simulate the cognitive and communication skills that hospital at night practitioners can use to deliver safe patient care at night.

**Why the idea was necessary:**
Care of hospital patients at night is now delivered by teams with a range of backgrounds and skills. To help prepare hospital at night practitioners for their new role we devised a prioritisation exercise based on tactical decision gaming.
Tactical decision games (TDG's) were developed by US marines and are now widely used in military and other settings.

**What was done:**
The model, developed by an iterative process with clinical expert teams, was a group exercise involving a written outline of patient scenarios. All scenarios were presented simultaneously. Within strict time limits the practitioners had to

- Seek further information to clarify
- Consider telephone advice they would give
- Decide what order (1- 10) to assess and manage patients
- Prioritise tasks

During the exercise emphasis was given to using evidence based safety tools such as SBAR and the ABCDE approach. There was an emphasis on the reasoning and strategies used. There was no "right" or "wrong" answer. The facilitator then led discussion and debate about the cases, their prioritisation, and strategies used.

**Evaluation of results:**
Perceived benefits included

- Increased awareness of challenges
- Reinforcement of ABCDE and SBAR
- Increased awareness of expertise in the team
- Effectively challenged thinking on prioritisation

**Conclusion:**
This cost effective, sustainable exercise can provide a high cognitive fidelity training opportunity.

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**P 29**

**Audiovisual modelling and clinical skill acquisition in first year physiotherapy students**

**Sophie Paynter, Michael Storr, Wendy Nickson**

Acquisition of clinical skills is a key competency in the development of the physiotherapist. Traditionally, practical skills teaching has taken the form of designated group sessions where students learn new skill through observation of expert performance, practise and feedback. This educational approach is constrained to timetabled classes. Staff were motivated to explore alternate teaching methods to improve effective skill acquisition in first year physiotherapy students to optimise semester time and resources. Concomitantly, student completed unit evaluations and expressed a need for increased expert feedback on performance.

In response to these reported limitations, an innovative teaching method, consistent with literature on psychomotor skill acquisition (George and Doto (2001), DeYoung (2003), Grantcharov and Reznick (2008)) was designed, providing each student with a model of expert skill performance on DVD. Prior to each practical session, students were encouraged to view the DVD demonstration of relevant clinical skills. As a result, less class time was consumed by expert demonstration allowing increased feedback opportunities for students. The DVD also provided a resource of clinical skill modelling available repeatedly throughout the year.

This project investigates whether the acquisition of clinical skills in first year physiotherapy students is enhanced by DVD expert modelling. It aims to examine and compare the results of physical examination skills (as assessed during the Objective Structured Clinical Examinations) in the years before and after routine DVD demonstration was introduced. Results from this analysis will be presented. Anecdotal feedback to date from both students and participating staff suggests that this teaching method appears to provide an efficient and effective way to assist the novice student in clinical skill acquisition. The formal data collection will enable evaluation of the pedagogical and pragmatic advantages of this educational approach, which draws on technology and applies the principles of psychomotor skill acquisition.

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**P 30**

## Prevalence and perceptions of leadership training in the undergraduate medical curriculum

**Shaw J.[1], Ker J.[1], Down I .[2], Mires G.J[1].**
**1 School of Medicine, University Of Dundee**
**2 NHS Institute for Innovation and Improvement**

**Background:**
Medical graduates all require leadership skills to work in the NHS. These have not been made explicit in the undergraduate medical curriculum and from a large part of professionalism. The Medical Leadership Competency Framework (MLCF) is a UK wide development to promote 5 domains of leadership competencies for all levels of medical training.

**Aim:**
To identify current leadership training opportunities and gaps at undergraduate level using the MLCF framework.
To explore perceptions of leadership training at undergraduate level

**Methods:**
**Study 1:** Mapping exercise
1) Mapping the MLCF against Scottish Doctor 3
2) Mapping the MLCF against the Dundee Medical School curriculum
**Study 2:** Perceptions about leadership
1) Holding workshops across Scottish medical schools to establish perceptions on the MLCF. These workshops included a mixture of medical school staff and students.
2) Use questionnaires to assess final year students understanding of medical leadership.

**Results:**
Quantitative and qualitative data was gained and analysed in each study.

The MLCF maps very closely to Scottish Doctor 3, a set of 12 learning outcomes agreed by all 5 Medical Schools in Scotland. The Mapping against the Dundee curriculum uncovered examples of where leadership training is implied rather that explicit.

Feedback from workshops was varied across the 5 Scottish Medical Schools. Finding relevant examples for framework competencies in domains of setting direction and transforming services were challenging. The questionnaire demonstrated that final year students understand and relate to all five domains.

**Conclusion:**
Leadership competencies as described by the five domains of MLCF, are present in the undergraduate curriculum. Perceptions of the relevance of the framework varies between Scottish medical schools. Consensus was that leadership skills need to be more explicit in the curriculum. Students identified relevance in all 5 domains in relation to the curricular programme.

**Conflict of interest:**
NHS Institute for Innovation and Improvement provided payment to cover expenses incurred during this project

University of Dundee Research Ethics Committee approval was gained for the student questionnaire.

**P 31**

**New beginning or complicated end?**

**Marian Angela Surgenor, Toli Onon, Ged Byrne**

Year 5 of the MBChB curriculum at The University of Manchester Medical School has undergone a major overhaul this academic year 2008-9

The changes have two aims. The first and more important is to ensure that our programme adapts to the changing needs of the new Foundation Programme and ensures that our students are optimally prepared to undertake Foundation Training. The other is to graduate as many students as possible within the year, though not at the cost of being inadequately prepared.

There has been the introduction of an exempting exam in January, which all students can chose to sit.
In addition to these formal examinations, students will be required to successfully undertake a variety of work-based assessments comprising demonstrations of practical skills (DOPS) and mini-clinical examination assessments (mini-CEX). Confirmation of satisfactory performance will be required to ensure that students reach the "intermediate life support standard".

One section of these competencies relates to the performance of clinical skills in the workplace (DOPS). There are three lists, List A are the skills that the students must have performed and have signed documentations proving they have been assessed and deemed competent in that clinical skill.

The aims of this study will be to look at student satisfaction with traditional OSCE examination and compare this with satisfaction with the newly introduced ward based assessments. In addition we will correlate this satisfaction with performance in these assessment modalities.

**P 32**

**Developing clinical, consultation and information management skills in the new keele curriculum`**

**Valerie Williams**

In 2007 we implemented a new undergraduate medical curriculum. Clinical, Consultation & Information Management Skills forms one of five vertical themes. It is lead by a group of medical educationalists from General practice, Anaesthesia, Nursing, and Midwifery. The new curriculum has allowed us to tightly integrate teaching of consultation, procedural and examination skills both horizontally and vertically within the curriculum and well as across primary and secondary care. We also include and emphasise effective use of information from the patient's record and evidence - based resources and case presentation skills.

The focus of the poster is a Venn diagram showing how the constituent theme skills overlap and integrate to develop effective consultation, problem solving and patient and information management skills. We will outline the teaching methods chosen to integrate these skills from year one to five in the curriculum. These include:

- teaching in a simulated clinical environment where the professional etiquette and behaviour required by hospital policies and procedures especially infection control are enforced
- the combination of low fidelity manikins and simulated patients for the teaching of practical procedures and intimate examinations
- only teaching skills in the skills lab if students have opportunities for immediate practice in placements
- training both tutors and the simulated patients to facilitate the sessions.

We will also discuss the challenges we have identified which include:

- enabling teaching hospitals to contribute
- recruitment and training workplace tutors
- standardising teaching and assessment across our teaching hospitals and general practices
- workplace assessment both the logistical challenges and ensuring their quality

An analysis of the student evaluation of the Clinical, and Consultation skills training from the first two years will be available.

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